PROGRESS REPORT

OF

FOREST ADMINISTRATION

IN

COORG,

FOR

1889—90.

By J. McKEE, Esq.,
Deputy Conservator of Forests

WITH A REVIEW BY THE CHIEF COMMISSIONER

AND

ORDERS BY THE GOVERNMENT OF INDIA.

X 103

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No. 916-F., dated Simla, the 27th October 1890.

From—SIR E. C. BUCK, KT., Secretary to the Government of India, Revenue and Agricultural Department,

To—The Chief Commissioner of Coorg.

I AM directed to acknowlege the receipt of your letter No. 1391-126, dated the 6th ultimo, forwarding, for the orders of the Government of India, the Annual Report on Forest Administration in Coorg for the year 1889-90, together with the remarks of the Commissioner and your Resolution thereon.

2. No alterations were made in the area of the Reserves. An aggregate area of some three square miles is shown as having been excluded from the Protected Forests, but this is due to corrections on account of sales and encroachments extending over several years. The total area under Forest management at the close of the year is recorded as 241 square miles of Reserved and 615 square miles of Protected Forests.

3. Although final orders were not passed during the year in regard to the areas under settlement, it is ascertainable from the remarks of the Commissioner that considerable progress was made in dealing with appeals against the Settlement Officer's orders. From the statement appended to the Report, it would appear that, in addition to 188 square miles of Reserves, the grazing rights within which were under settlement at the commencement of the year, the settlement was taken in hand of 87 square miles of previously constituted Reserves and 6 square miles of Protected Forests which it is proposed to reserve. It is anticipated that these latter will be finally notified during the current year.

4. In reviewing the Administration Report for the previous year, attention was drawn to the insufficiency of the information given with regard to the state of the forest boundaries, and the Government of India are glad to observe that this subject has now been dealt with in greater detail in the present Report. It would appear that the total length of the artificial boundaries of the Reserves is 296 miles, and that these are marked by 925 maunds and by 1,986 survey stations, but that these latter are not always traceable. The artificial boundaries of the Protected Forests, so far as ascertained at present, measure 215 miles long and are marked by 3,650 maunds and 104 survey stations. During the year all the boundaries of the Reserves were cleared and 25 miles of those of the Protected Forests; but of the boundary marks, all but 650 out of the total number of 6,665 supposed to be in existence required to be either renewed or repaired at the close of the year under review. This statement does not, however, include the large forest area of 40 square miles reserved in the Ghats which still remains to be demarcated and surveyed, or that known as the "Ghat Protected Forests" (309 square miles), the boundaries of which, although surveyed in 1883-84, have not been maintained or the survey even plotted.

It would appear from these facts that forest demarcation in Coorg has not received sufficient attention in the past, and, in inviting your attention to Mr. McKee's remarks on the subject, I am directed to suggest that immediate steps should be taken, in connection with forest settlement and the surveys which are now in progress, to secure the final demarcation of all areas which it is intended to maintain permanently as forests by substantial and adequate marks on the ground.

5. Of the total area of 856 square miles under forest management, it is reported that 44 square miles of Reserved and 309 square miles of Protected Forests remain unsurveyed. The Government of India trust that the subject of completing the surveys of Reserves and the mapping of the Cardamom estates in the Ghat Forests will receive your consideration in connection with the question of the more complete demarcation of the forests.

6. Although no Working-Plans were framed during the year under review, it is noticed that steps are now being taken to prepare such Plans and that the matter is receiving the Deputy Conservator's attention.

7. No new roads or buildings were constructed during the year. A sum of Rs. 1,015 was spent on the repairs of roads and Rs. 827 on buildings.

The projected tram-line from Hunsur to the Nalkeri Forests was reported on by the Officiating Inspector General after his tour of inspection last year, and you have separately been asked to consider his Report.

8. In commenting on the progress of Forest Administration during 1888-89, attention was drawn to the fact that the protection of the forests against breaches of the forest rules was far from satisfactory. The Government of India are, therefore, glad to observe that more vigorous action has been taken both as regards the prosecution of offenders and the punishment of Forest Subordinates for neglect of their duties. It is, however, noticed that the same advantage does not appear to be taken in Coorg as in other Provinces of the provisions for compounding offences in the Forest Act.

9. The satisfactory results which, in the year under review, have attended the attempts made to protect the forests from fire are specially encouraging, as will be seen from the following statement:—

Year.	Area, in square miles.			Proportion of Failures to area attempted.	Cost.		Proportion of area under Fire-protection to total area of Reserves.
	Attempted.	Failures.	Protected.		Per square mile protected.	Per acre protected.	
				Per cent.	Rs.	Pies.	Per cent.
1889-90 ...	202	6	196	3	22	7	84
1888-89 ...	201	85	116	42	31	9	83
Increase or decrease in 1889-90	+1	—79	+80	—39	—9	—2	+1

These results are doubtless due, to a considerable extent, to a more favourable season; but the Government of India are disposed to believe that they are also partly due to the adoption of more stringent measures and to the maintenance of better discipline amongst the Forest Subordinates. His Excellency in Council notices with pleasure the greater attention which, as evinced by the remarks contained in the Report, has been given during the past year to the important work of fire-protection, and is glad to observe, in this connection, that the prevention of trespass in the forests for the purpose of killing wild animals is receiving the attention of the Mysore Durbar, and that you are prepared to consider the advisability of taking action in the same direction in Coorg.

10. The only important matter connected with grazing is the question, which is still *sub judice*, as to the number of cattle to be admitted to graze of right. From paragraphs 32 and 33 of the Report, the reproduction in several of the Reserves depends materially on the decisions that may be come to.

11. The paragraphs relating to natural reproduction are clear and interesting, and may be considered to accord with the views of the Officiating Inspector General, who advocates the improvement of the forests by aiding natural reproduction rather by cultural operations than by the creation of independent and artificial plantations of teak and sandal.

12. The area of plantations at the close of the year was as follows:—

Class.	Area, in acres.			
	At commencement of year.	Added.	Excluded.	At close of year.
Regular Plantations ...	1,327	147	23	1,451
Cultural Operations ...	88	11	89	10
TOTAL	1,415*	158	112	1,461

* These figures do not agree with those given in the Report for 1888-89, as explained in paragraphs 40 and 41 of the present Report.

Of the total of 1,451 acres, 427 were under sandal, 886 under teak, and the balance of 138 acres represented the fuel plantation at Mercara. The Government of India remark that, but for the fire in the Bakka plantation, the extensions of the year under review would have shown a considerably reduced rate per acre. Notwithstanding the destruction of 23 acres, it would appear that the new areas cost, exclusive of outlay on the preparation of the ground in the previous year, less than Rs. 20 per acre. The maintenance charges are exceptionally high in the case of the sandal plantations, but are explained as being due to unusual outlay on account of fencing.

13. Weedings and the cutting of creepers extended over 1,092 acres at a cost of Rs. 307. The cost of these operations is moderate, and the Government of India consider that this cheap method of increasing the proportion of the more valuable species in the forests should be steadily pursued, care being taken that it is only applied with due regard to the consistency of the crop and sylvicultural exigencies.

14. The following statement exhibits the outturn from the forests during the year under review, as compared with the previous year :—

Class of Forests.	Timber.	Fuel.	Bamboos.	Minor Produce.
Reserved.	Cubic feet.	Cubic feet.	No.	Rs.
By Government agency ...	68,951	...	8,375	...
By Purchasers	50,154	60,025	2,68,541	853
By Right-holders	...	...	...	2,411
Free Grants	...	...	...	...
TOTAL ...	1,19,105	60,025	2,76,916	3,264

Class of Forests.	Timber.	Fuel.	Bamboos.	Minor Produce.
Protected.	Cubic feet.	Cubic feet.	No.	Rs.
By Government agency ...	3,709	...	....	...
By Purchasers	4,368	85,800	...	10,634*
By Right-holders	...	...	...	...
Free Grants	3,648	...	...	...
TOTAL ...	11,725	85,800	...	10,634*
GRAND TOTAL IN 1889-90 ...	1,30,830	1,45,825	2,76,916	13,898
" " " 1888-89 ...	1,11,823 (+ 562 trees + 8½ cart-loads.)	14,963 cart and head loads.	2,38,665	2,702
Increase or decrease in 1889-90.	Not calculable	Not calculable	+ 38,251	+ 11,196

* A portion of this was from "Reserved Forests."

The work done by departmental agency was considerably less than during the previous year. The Deputy Conservator reports that work was restricted because the balance of wood in stock, which at the close of that year amounted to 57,370 cubic feet in depôt and 132,016 in the forests, total 189,386 cubic feet, was estimated to be equal to three years' sale requirements. The temporary stoppage of further fellings may, under the circumstances, be convenient merely for the purpose of taking stock of logs in the forests ; but may, it is feared, tend to paralyse the arrangements for carting, which have been developed over a number of years, and which it was hoped still further to expand.

The adjustment of the timber accounts, by a careful stock-taking of logs remaining in the forests from previous fellings, is doubtless, from the remarks in paragraph 52 of the Report, an urgent work ; but this could probably have been effected by department ally collecting the logs by elephant or other dragging power at certain convenient points, without disorganising the ordinary work of the year, to which the people have now become accustomed.

15. There was a considerable decrease both in the gross revenue and in the surplus realised during the year as compared with the preceding year, as will be seen from the following statement :—

Year	Receipts	Charges	Surplus.	Proportion of Surplus to gross Revenue
	Rs.	Rs.	Rs.	Per cent.
1889-90	92 753	72,420	20,333	22
1888-89	1,36,183	80,175	56,008	41
Decrease in 1889-90 ...	43,430	7,755	35,675	19

This decrease is attributed by the Deputy Conservator partly to the smaller demand for timber during the year under review than in the preceding two years, in which it was abnormally high owing to large buildings being under construction in Mysore. The average receipts for timber sold of the previous five years only amounted to Rs. 45,793, as compared with Rs. 43,560 in the past year and an average of Rs. 58,650 in the two preceding years

A further cause of falling off in the revenue was the deferment of the collection of Rs. 10,000 representing the rent of Cardamon *malés*, and the non-realization of some other rents payable on the same account within the year. With the low prices prevailing and the failure of the crop, the collection of the full demand was an impossibility.

16. The failure of *Casuarina* at the elevation of Mercara, in exposed situations, has been specially noticed.

17. On the whole, the record of the year's work is satisfactory and reflects credit on the Deputy Conservator and the Forest Staff in Coorg. The Government of India have noticed with pleasure the improvement, as compared with the previous year, in regard to the accuracy with which the Report has been prepared and the completeness of the information recorded in it.

Appendix showing the discrepancies noticed in the Coorg Forest Administration Report for 1889-90.

9,600 bamboos are entered in the statement in *paragraph 49* as the outturn by departmental agency, but Form No. 54 shows that such outturn amounted to only 8,375.

In *Form No. 54,* the following equivalents are adopted :—

1 Pole	...	...	...	...	4½ Cubic feet.
1 Tree	...	...	...	...	50 „ „

At the above rates, the outturn, shown under " Reserved Forests," of 7,601 poles and 319 trees would amount, respectively, to 34,204 and 15,950 cubic feet. The Form, however, gives different results. Again, under " Protected Forests " in the same Form, the equivalent of 3,432 poles is given as 96,800 cubic feet, whereas it should be 85,800 cubic feet. Introducing the necessary changes, the totals and " Grand Total " of the Form undergo considerable modification.

[G. N. K]

G. C. Press, Simla.—No. 815 R. & A. D.—3-11-90.—220.

Proceedings of the Chief Commissioner of Coorg, (Forests),—No. 1373—126-90, dated 3rd September 1890.

READ—

Letter from the Commissioner of Coorg No. 266—161, dated the 11th July 1890, forwarding the annual report on forest administration in Coorg for the year 1889—90.

ORDER THEREON No. 1373—126-90, DATED BANGALORE, 3RD SEPTEMBER 1890.

The report of the Deputy Conservator is a good and satisfactory one, and gives a clear account of the difficulties that stand in the way of forest administration in Coorg, and the measures that are being taken to combat them.

2. They are the encroachments, and abuse of *banés* and *mallés*, the promiscuous shooting which has prevailed for many years and still prevails to a large extent, and the grazing rights of the people in the forests.

3. The village maps which are now being made by the survey department, preparatory to the survey and settlement of individual holdings by the revenue officials, will involve the mapping of all cultivated areas within reserved and protected forests as well as the demarcation of their boundaries; and this will facilitate and supplement the work of forest settlement.

4. The necessity for careful forest preservation, involving exclusion of cattle and the prevention of trespasses for the purpose of killing wild animals, is engaging the attention of the Mysore Durbar, some of whose best forests lie along the Coorg frontier, and all measures taken by the Mysore authorities to this end will help the efforts of the Coorg forest department in the same direction. The Durbar is about to introduce a close time for wild animals as part of a general scheme for game preservation, and it may be advisable to do the same in Coorg so as to stop all shooting at the time when forests are endangered by chance fires.

5. The extension of the Mysore State Railway to Nanjangud will, it is hoped, have a favourable effect on the sale of wood from Coorg forests. It will probably be possible to float timber down the Kabbani river to Nanjangud at a less cost than it can be carted as at present to Mysore.

L. S. NEWMARCH

Secretary to the Chief Commissioner.

To—The Commissioner of Coorg.
„ Deputy Conservator of Forests, Coorg.

No. 266—161, dated the 11th July 1890.

From—Colonel T. G. Clarke, Commissioner of Coorg.

To—The Secretary to the Chief Commissioner of Coorg, Bangalore.

I have the honor to transmit the annual report on forest administration in Coorg for the year 1889—90, which has been submitted by the Deputy Conservator of Forests. The report reached me on the 7th instant, and the delay is explained by Mr. McKee as due to several additional statements having had to be prepared while several of the old forms had to be remodelled according to the Code. The report has however been submitted earlier than in any previous year, I believe.

2. The statements appended to the report have been revised as far as practicable in this office, and a few trifling discrepancies rectified.

3. The report enters so fully into every point which calls for notice in the work of the year that but few comments of mine are needed.

4. The outstandings of cardamom malé rents were, as pointed out in paragraph 63 of the report, very large at the close of the official year. The balance then outstanding amounted to Rs. 15,675—1—0, of which Rs. 10,987—2—10 have been since collected. The cardamom growers have suffered severely, the crop last season having been almost destroyed by the drought, while prices have continued low.

5. In the same paragraph, the Deputy Conservator refers to the diminished receipts under budget head V C, for which the revenue officials are mainly responsible. Of the sum of Rs. 9,583 in question, Rs. 4,686 (fractions omitted) are recoverable through this office. Of this, Rs. 3,006 belong to past years, and Rs. 1,680 to the current demand. The greater portion of the latter amount has been recovered, and is held in deposit to be adjusted on letters of advice. Of the former sum, Rs. 1,500 were collected but erroneously credited to land revenue. Sanction has been obtained to the transfer to forest revenue.

6. Forest settlement work has been in operation for two seasons, namely, from January to April (four months) in 1889, and during February and part of March 1890. The settlement embraced all the reserved forests, and it was proposed during the past season also to extend it to the protected ghat forests, but the forest settlement officer was prevented by the state of his health from taking up this part of the work. I have submitted proposals for a revision of the demarcation line of the ghat forests so as to facilitate greatly the work of their settlement.

7. The claims preferred to the forest settlement officer consisted mainly of demands (1) for the right of free pasture of their cattle and (2) the right of taking from the forests fibres, creepers, bamboos, &c. The latter claim was in all cases rejected, and the former claim was in most cases allowed, with certain limitations as to the number of cattle to be admitted in respect of villages adjacent to the reserved forests which extend along the east frontier of the province from south to north. In the Attur and Anekadu reserves, numerous applications were made to exclude from the forests lands claimed as *banés*, and which had been, as alleged, wrongfully included therein. In 7 cases in Anekadu, and 8 in Attur, these claims were allowed, and the forest line directed to be thrown back. In North Coorg, complaints were made that *urudves* (village forests) formerly allotted to certain villages had been absorbed into the reserves. In several cases, the claims were held to be established, and the forest settlement officer marked off fresh allotments from government waste land in the neighbourhood as *urudves*. Some few claims were preferred to rights of way through the reserves, and these were nearly in every case granted.

8. Fifteen appeals were preferred by the Deputy Conservator of Forests on behalf of the Secretary of State to me as the appellate court constituted under section 16 of the Indian Forest Act, 1878, as well as cross appeals from the decisions of the forest settlement officer. I deferred the hearing of these appeals until I could proceed to convenient localities near the forests, in the course of my jamabandy tour. I held courts for the purpose at Fraserpet, Siddapur, and Ponampet between

December 1889 and 1st March 1890, and in the case of some adjourned appeals at Merkara in May 1890. All the appeals have been disposed of namely, 13 on the 28th May and 2 on 20th June 1890.

9. The conclusions to which I came in respect to the claims advanced by the people to free grazing rights were thus stated:—

(1) While the claims of the ryots of the villages bordering the State reserves are based solely on the fact that no *banés* were originally allotted to their rice lands, and that consequently their grazing and similar requirements were supplied from State waste, these claims have ceased and determined in respect of all wargs to which *banés* have been allotted in subsequent years.

(2) The Local Government in 1880 on the report of the authorities recognized the practice of the bordering villagers grazing their cattle in the State forests, but this rule did not arise out of a full investigation of the question and was necessarily subject to a forest settlement. No easement can be created by the practice and the application of section 15 of the Indian Easement Act, 1882, to the case is inappropriate. The admission of such a right would debar the Government from disposing of any waste land in the forests, but, as has been remarked by the forest settlement officer of Coimbatore, "according to the land revenue system of Southern India, all waste land is vested in Government, and the system of granting or leasing waste lands by Government free of all encumbrances, is a custom at least as immemorial as the practice itself of grazing over all waste lands left unsold, unleased, or otherwise not required for any special purpose by Government."

10. Further I held that where rights of free grazing were allowed, the rate should be reduced from 5 head of cattle per 100 batties of wet land cultivated, to 3 head. It is not the owners of small herds who are under the necessity of sending their cattle to the reserves, but large proprietors in whose case an allowance of 3 head per 100 batties will be ample and liberal. I added that if the larger land owners find it necessary to keep a large number of surplus cattle for the benefit of their manure, it is only reasonable that they should pay for the privilege of pasturing them in the reserves.

11. Accordingly in all the cases that came before me, wherein it was shown that the complaints of insufficient pasturage for cattle arose from *bané* lands not having been allotted, or as was generally the case, being allotted inadequately, I directed that a further enquiry should be made on this point in view to sufficient grazing land being assigned, if practicable, from the adjoining *paisari* or Government waste, or if indispensably necessary, from the reserved forest, in consultation with the forest department. Many of the cases have therefore been remanded to the forest settlement officer, and although the work of settlement has thus been prolonged, no other course seems possible, if an arrangement is to be affected, satisfactory both to the Government and to the ryots of villages adjoining the reserves.

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PROGRESS REPORT

OF THE

FOREST ADMINISTRATION IN COORG,

FOR

1889–90.

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Introduction.

The year under report was marked by the visit of the Inspector General of Forests, who remained in camp from the 14th January to the 9th February, inspecting all the chief forests and plantations of the province. No such inspection has been made, it is believed, since the visit of the present Sir Deitrich Brandis in 1868, since which date many and important changes have taken place in the constitution and management of the Coorg forests. Mr. Hill's report will doubtless be of great interest and prove advantageous in the future working of the division.

2. A change also took place during the year in the controlling officers, Messrs. Dickinson and McKee having been respectively transferred from and to Coorg in October 1889. Mr. Dickinson had held charge for upwards of 12 years, during which time, the division gradually advanced from an elementary stage of administration to its present well ordered condition. Forest work, during the same period, has largely developed and been followed with a proportionate increase of income. Conservancy, represented by fire protection, has been introduced into all the reserves. Plantations of teak and sandal have been formed with a fair amount of success, and have prepared the way for further extensions in the same direction. The more valuable forests have been given a legal status, constituted reserves, and brought under the management of Act VII of 1878, and rules framed under that Act. The timber trade has also been developed, and working plans been drawn up for the two most important forests of the division. Mr. Dickinson's long experience and intimate knowledge of the country and people, and of the requirements and capabilities of the forests, made him a specially valuable officer in a somewhat peculiar charge. Mr. Dickinson was transferred on promotion to the Central Provinces.

CHAPTER I.

Area.

3. No alterations were made in the reserved areas during the year. The forests of Kattipura, Arkomale and Kipalli, aggregating 3,885 acres, have been excluded from the area shewn by mistake under reserves in Form No. 49 attached to last year's report. These areas have been notified under section 4 of the Forest Act, and enquiries have been made and decisions recorded by the settlement officer in respect of all claims connected with them; but these decisions have yet to be confirmed, and it still remains to notify the above forests under section 19 of the Act. It is hoped this will be done during the current year.

4. Acres 1604 have been excluded from the area estimated under protected forests owing to sales of waste land, &c., effected during the past three years, as follows. By an oversight no deduction on this account was made in last year's return.

Sales of waste land.		Sales of building sites.		Encroachments.	
1887—88	568·22	1887—88	38·43	1887—88	118·63
1888—89	395·48	1888—89	25·16	1888—89	191·48
1889—90	108·82	1889—90	26·52	1889—90	130·79
	1,072·52		90·11		440·90

Boundaries.

5. In accordance with the instructions conveyed in the Government of India review on last year's report, and the Revenue and Agricultural Department Circular No. 35 F. of the 17th October 1889, a statement is attached, Appendix A shewing all available details regarding the boundaries of the Coorg forests. The information is not complete for all forests, and the details still wanting will be filled in as obtained.

6. All the reserves situated in East Coorg are demarcated, but most of them still need attention so far as their boundary marks are concerned. In South Coorg, the forests are sufficiently well marked on the east, where they march with the Mysore State, but substantial marks are for the most part still required on their western boundaries, where they travel either with private estates or village forest land. To correct this defect, arrangements were made some time back to prepare large granite stones for erection, but it has been found, owing to their great weight, that these stones cannot be transported from the quarries to where they are required in the forest, or that the expense and delay in doing so will be too great. As many of them as can be utilized will be erected; but for the rest, it has been decided to substitute a cheaper mark, consisting of two ditches and mounds, with a small stone between them bearing a serial number. During the year under report a beginning has been made in this direction, 144 marks having been dug on the boundaries of the Arkeri and Nalkeri forests at a cost of Rs. 56. The 255 miles of external boundary demarcated round the eastern reserves were cleared and maintained at a cost of Rs. 613.

7. The ghat forest reserves of Urti, Kerti, Chembu, and Quinad still remain to be demarcated and surveyed. It is hoped that something will be done in this matter during the current year. The same remark applies to the ghat protected forests of Arkomale and Kipalli.

8. With regard to the large area known as the "ghat forests," it may be observed that they were demarcated with an inner line in 1880—81, and that this line was surveyed departmentally in 1883—84. But the survey was not plotted, and it does not appear that the boundary has been maintained. The line in places has become quite obliterated, and a large proportion of the marks are reported to be missing or untraceable. All of them require attention during the year; a commencement was made to demarcate the cardamom *males* situated within these forests. The statement above referred to, shews that 20 miles of boundary were cleared and 179 new marks laid down at a cost of Rs. 294 or Rs. 14—11—2 per mile. The demarcation consisted in cutting a line 12 feet wide and marking the same at all important angles with ditches and mounds, 5′×3′×3′ or with large heaps of stones surrounding a stout post. Work in these forests is necessarily slow, owing to the very great difficulty in obtaining and keeping labour.

9. The expenditure exhibited in the appendix does not agree with that debited to A VIII—a, as the latter includes the cost of the forest settlement.

CHAPTER II.

Surveys and Working Plans.

Surveys.

10. No departmental work was done during the year, and it is proposed to complete the survey of the reserves and ghat forests through the agency of the revenue survey party now at work in the province.

11. The following forests remain to be surveyed:—

Name of forest.	Estimated area.
Bogerikadu, block of Nidta Ganagur	300 acres.
Chikka Hudugur, block of Yedavnad	1,000 „
Bendebetta, block of Athur, Anekadu	450 „
Bactonkote	800 „
Urti and Kerti	19,200 „
Chembu and Quinad	6,400 „
Arkomale	2,500 „
Kipalli	800 „
Ghat forests	1,94,460 „
Total.....	2,25,910 „

12. A departmental surveyor was employed in 1883 to survey the interior boundary of the ghat forests, but his work is reported to be incorrect, and in some respects so incomplete, that it is doubtful whether it will not be cheaper and better to do it over again than to attempt the elaborate check and corrections that seem necessary. Moreover, it is objected by the revenue department that the line was demarcated without sufficient attention being given to the exclusion of cultivated or cultivable lands on its border, and it has been proposed to alter it in several places.

It is also desirable that the numerous private cardamom estates situated within the ghat forests, or rather their boundaries where they adjoin Government property, should be surveyed and mapped. These *males*, as they are termed, are at present almost unknown quantities, and, apparently, have been liable to vary in extent and shape very much at the discretion of their proprietors. Situated in the most inaccessible positions and divided up into numerous detached sub-divisions or plots, which are mixed up with, and interlace with Government leased *males* and unoccupied areas of Government waste, these private or *jama males* are difficult to supervise and keep within their proper borders; and as the only record of their boundaries is known to be very inaccurate, it can be understood how easily advances on adjoining Government land may occur, and how difficult it is to prove and correct such encroachments.

During the past season a forest party has been engaged on demarcating the boundaries of some of these *jama males* where they adjoin Government land, and preparing rough eye sketches of the same, which, supplimented with a very detailed description of the demarcated boundaries, will doubtless be of much assistance in settling future disputes. But in dense ever green forests, like those in question, boundary marks, unless of built masonry, soon become obliterated, or can be removed; and until these boundaries are actually surveyed, there will always be much difficulty in preventing or checking encroachments. A simple traverse survey is all that is needed for all the above forests; their topographical details can be obtained and transferred from the maps already prepared by the Madras survey department. The whole subject is now under consideration.

Working plans.

13. There is nothing to report under this head. The present Deputy Conservator having taken over charge only in October last, and being quite new to the country, has not found time to complete any of this work. It was proposed by the Inspector General of Forests, to prepare simple preliminary plans based on area, for all the reserves being worked for timber, and instructions have been issued by the Deputy Conservator with the object of collecting information for this purpose. It is hoped that something will be done in this important matter during the current year; but attention is invited to the fact that, the Deputy Conservator in this division is single handed, and that all such work will require to be personally supervised and in great part prepared by himself, whereas formerly, when the plans for Hatgat and Nalkeri were drawn up, an assistant was attached to the charge and available for this special work. But the matter will have the Deputy Conservator's careful attention, and every effort will be made to carry out the orders of Government in this connection.

14. The following statement shews the progress and cost of the work done under this head up to date:—

Name of forest.	Area in square miles for which plans have been completed.	Area for which plans are being prepared.	Area for which plans have to be taken in hand.	Cost per square mile.
Nalkeri	40	...	...	37—0—0
Hatgat	43	...	...	37—0—0
Dubare	...	18	...	...
Devamachi including Mavukal ...	...	28	...	...
Other forests	...	...	118	...
Total.....	83	46	118	...

CHAPTER III.

Protection and Improvement.

Establishment.

15. The Coorg forest division was held by the following officers during the year :—

From 1st April to 7th July, Mr. Dickinson, Deputy Conservator.

From 8th July to 11th October, Mr. Leggatt, District Magistrate, Coorg.

From 11th October to 18th October, Mr. Dickinson, Deputy Conservator.

From 19th October to end of year, Mr. McKee, Deputy Conservator.

16. There was no change in the strength of the permanent and temporary subordinate staff, which stood at the close of the year as follows :—

Permanent.	*Temporary.*
1 Deputy Conservator	2 Rangers.
2 Rangers	2 Foresters
13 Foresters	10 Mutsaddies
73 Guards	13 Guards
1 Head clerk	1 Clerk.
2 Clerks	
2 Munshies	
8 Peons	
1 Lascar.	

17. A proposal has subsequently been submitted for the Chief Commissioner's consideration, having for its object the re-organization of the subordinate establishments. The men classed under "temporary" staff have been in employment for many years, and as their posts are of a permanent nature, it is recommended that they be transferred to the permanent staff and granted the advantages enjoyed by that establishment, the members of which are employed on precisely the same work. It has also been proposed to raise the maximum scale of pay to that prevailing in other provinces, so that the prospects of the subordinates may be somewhat improved, a point of much importance in a country like Coorg, where there is a large demand for labour of all kinds, and where comparatively high pay and wages are easily obtained.

General Protection and Breach of Forest Rules.

18. Appendix B shews the number of cases in which it was found necessary to punish members of the subordinate staff. No prosecutions were required, and the punishments awarded were chiefly fines for carelessness or neglect of duty. But the proportion of punishment calculated over the full strength of the establishment was high, being 22 per cent; and the forester grade was conspicuously the worst in this connection.

19. From statement No. 50 it will be seen that 12 new cases were prosecuted in court during the year under report. Of those, 7 cases were successfully prosecuted and 36 persons convicted and punished. In 4 cases, 8 persons were acquitted, and 1 case was discharged, owing to the defendant dying during the prosecution. One case pending at the close of last year was decided in favor of the department during the year. Excluding the case discharged, the result of disposals, compared with the previous year, was as follows :—

Year.	Prosecuted.		Convicted.		Acquitted.	
	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.
1888—89	6	7	4	5	2	2
1889—90	12	45	8	37	4	8

The percentage of convictions obtained was as follows:—

	Cases.	Persons.
1888—89	66·6	71·1
1889—90	66·6	82·2

The conspicuous feature of the prosecutions was the number of persons (32) convicted of shooting in the reserves without a license and in unauthorized seasons.

Forest fires.

20. With the exception of the month of February and early March, when strong dry easterly winds prevailed, the past season was exceptionally favorable for this kind of protection. In March, 2 inches of rain fell in most forest localities, distributed over the latter part of the month, and in April there were several heavy showers aggregating 4 inches, in consequence of which, the fire lines rapidly became covered with green grass and the forest safe against ignition. Of 1,29,738 acres, for which protective arrangements were made, 1,25,601 acres were saved from fire or 96·81 of the whole area.

No fires occurred in the ghat forests.

21. A reference to form 51 will shew that the total cost debitable against this head, during the past season of 1890, was Rs. 4,377, or 6¾ pies per acre, or Rs. 22—5—4 per square mile. The ordinary expenses were this year increased by Rs. 751, owing to the fire lines being opened out in dangerous places from 10 feet to 30 feet wide, with the view of exposing a broader surface to the drying influences of sun and wind, and of obtaining favorable conditions for burning the traces by an earlier date than heretofore, and before the adjoining forest became inflammable. Many localities in the southern forests remain green until quite late in the season, and so long as this condition continues, line burning can be performed but imperfectly. But once the east winds commence, the entire forest dries up rapidly in a few days and fire tracing becomes a work of much difficulty, and danger to the adjoining reserve; for it must then be carried out very expeditiously, and frequently while fires from outside are creeping up towards the protected area. By widening the *guide* lines, as my predecessor arranged for before leaving Coorg, a useful work, tending to more efficient protection, was commenced; and it is intended gradually to extend this operation to all suitable places throughout the reserves.

22. Acres 4,137 were burnt during the year as follows:—

Attur Reserve.			
(Bakka sandal plantation) ..		37	acres.
Dubare reserve		300	„
Devamachi reserve		1,230	„
Hatgat Reserve.			
a=	700		
b=	200		
c=	20		
		920	„
Nalkeri Reserve.			
a=	50		
b=	1,400		
c=	150		
d=	30		
e=	20		
		1,650	„
Total acres....		4,137	

23. In some respects, the Attur fire was the most unfortunate of the above, as it burnt out, for the third time, the sandal plantation of Bakka, which had been very successfully sown in the previous rains, and was well stocked with healthy seedlings. Much trouble and expense has been incurred on this area, and special arrangements were made this season, by widening the surrounding fire traces and isolating the plantation from the adjoining reserve, to render it safe from accident, and if the establishment had done its duty, there is little doubt the arrangements would have been effective. But the gaurds failed to keep the lines clear of dead leaves, and when a fire occurred in the neighbouring unprotected forest, it crossed the *trace* and passed into the plantation, which was completely destroyed. The guard chiefly implicated was dismissed, and a second heavily fined. The forester in charge of the reserve was in attendance on the settlement officer, and had been unable to make a recent inspection, or he would also have been held responsible.

24. The fires in Dubare and Devamachi were the result of one and the same cause, and were occasioned by a cartman carelessly setting fire to the forest adjoining the public high road. The case formed the subject of a prosecution, in which a conviction was obtained and the offender punished. The area burnt over does not contain much valuable forest, and the damage done was not excessive, a large portion of the growth consisting of bambu clumps which had seeded during the two previous seasons, and were therefore nearly valueless. But the few plants that survived in those areas of bambu land, which had been sown with teak seed in 1888 and 1889 were destroyed. These areas will be resown during the ensuing year.

25. The Hatgat fires, were occasioned for the most part, I am bound to believe, by incendiaries or wandering kurumbars. The small one of 20 acres in extent, was caused while line burning and needs no remark; but both the other fires were lighted inside the reserves and could not have originated from any carelessness on the part of a firing party, or by a fire crossing the line from outside. The third and worst of these fires happened when the Deputy Conservator was at Nagraholay, 6 miles off, and next morning when a portion of the damaged area was inspected, it was found that isolated patches of forest had been burnt in three places, proving conclusively that each area had been fired separately. Two large grass swamps are situated within the burnt area, and it may be that the fires were lighted for the purpose of burning these grass lands and improving the grazing. The damage done to the standing growth was inconsiderable, as the fire burnt through dense bambu cover, in which there is little or no undergrowth. But the leaf deposit was of course destroyed. A reward was offered for information leading to the arrrest of offenders in this case, but without result.

The third fire in this forest, which burnt 200 acres, occurred on the 28th February, on which date, and at the same time, an extensive fire also occurred in the neighbouring forest of Nalkeri, burning 1,400 acres. But although these fires happened on the same date and in adjoining areas, they can hardly be considered to have been caused by the same act of carelessness or design. For the two areas in question had been isolated by a broad and well burnt fire trace, 150 feet wide, across which, in that particular kind of forest, it is improbable that flames or burning embers were blown, and on which there was found no trace of the fire having crossed, when the line was inspected shortly afterwards. This latter fact was made sufficiently apparent by the difference in appearance between the line, which was then covered with bright green grass, and the adjoining charred and blackened forest. Nor could the fires have originated in outside forests, for in no point did they extend to or touch the outer boundary of the reserves, besides which, the outside forests in that locality had been burnt previously. They were therefore certainly lighted inside the reserves, but whether by accident or design is not certain. The fact however of two fires breaking out in adjoining areas on the same day, and that, in all probability each fire had an individual origin, is so unusual, that it is easier to suppose they were planned, than the result of accident. It was proved also that the four local fire-guards were absent from their posts on the day of the fire, and there is some reason for supposing them to have been implicated in the occurrence. But no sufficient evidence being obtained to justify their arrest, they were dismissed for neglect of duty. Both these fires caused much damage to shoot reproduction, especially of teak, all re-growth up to 6 feet in height being burnt back to the ground, or destroyed as to their leading shoots. The high forest was not much affected.

26. Two of the other fires in Nalkeri, burning 50 and 30 acres respectively, were the result of accidents while line burning, the former being owing to flames, caught in a local wind current caused by a ravine, being driven across the guide lines; and the latter to an outside firing party burning their line in the middle of the day and independantly of the Coorg officials. The other fires were of doubtful origin. They are said to have been lighted inside the reserve, but in one case at least, it is probable the fire was the result of careless line burning. No special damage resulted from either of them.

27. I have entered into rather more detail, regarding these fires than is perhaps always necessary, as the work of fire conservancy in Coorg has been made the subject of adverse criticism by the Government of India, in their reviews on former forest reports; and because I feel that the unusual success obtained this season was as much the result of good fortune as of good management. There are special difficulties attending the measure in the province, which have been recorded by my predecessor in paragraph 14 of his last year's report. But it seems to me that the chief obstacles to success are the character of the local forest cover and the simmering discontent present among the people in regard to the questions of *shikar* and *forest rights.*

28. In most of our forests, a large percentage of the cover is composed of bambu, either *B. Arundinacea* or *D. Strictus*, both of which species, but especially the former, in the comparatively humid climate of Coorg, are very abundant but very gradual leaf shedders. In fact, the bambu clumps, and indeed many of the broad leaved species also, continue shedding their foliage right through the dangerous season up to the rains, with the consequence that the fire traces become covered with dry and combustible *debris* very shortly after being cleared; and unless the burning operation is continually repeated, the forests must always be in danger from fires crossing the lines from outside, especially as such outside fires are of constant occurrence during the months of February, March and April. Sufficient attention is not given to this point by the local forest subordinates, who raise objections on the score of expense; but it is clearly as important to keep the lines clear of inflammable material, as to clear them of leaves and undergrowth in the first instance; and this can be done only by repeated burnings throughout the dangerous season. In many parts of the dry forests of the Central Provinces, where the trees shed their leaves in a relatively short space of time, two burnings are found to be sufficient; but in Coorg, especially in bambu localities, a fortnightly burning will be necessary.

29. The *shikar* difficulty will probably take some little time to overcome. In the southern reserves especially, it was formerly the custom for the people to range the forests for shooting purposes. Every ryot, almost every kurumbar, appears to own a gun of some sort, and in the slack season, parties were formed for driving and stalking, or for watching water holes or salt licks, with the object of shooting, or capturing by snares, any animal, from a bison to a red squirrel or black monkey. These parties were doubtless the fruitful cause of forest fires, and it is well they have been prohibited. But it can readily be understood that, in a country where shooting and hunting privileges have been enjoyed by every one, the restrictive measure of forbidding *shikar* in the reserves, except at certain seasons and on payment of a license fee is certain to cause some discontent even to persons able and willing to obtain the license; while constant attempts to evade the rule may be expected for some time on the part of poorer sportsmen, especially as our lower subordinate staff is recruited from and related to the class of people who are the chief offenders in this respect, and indeed are themselves among the offenders. But time and firmness will doubtless have the desired result. During the past season 32 persons were prosecuted for unauthorized shooting, and convictions obtained, entailing fines aggregating Rs. 115—14—0, and the loss of a gun and bill-hook. A subordinate was also punished for the same cause, by having his gun confiscated and being fined a month's pay. These cases, it is hoped, will have a deterrent effect in future.

30. The question of *rights* difficulty, is also I think of a temporary nature only. The forest settlement in some cases seems to have given rise to hopes that have not been realized, and disappointment has led to discontent, which in certain localities may also have led to mischievous acts of incendiarism. For instance, it would appear from the petitions received by the settlement officer, that the villagers residing near the Hatgat and Nalkeri forests hoped to obtain free grazing, permission

to remove without payment, bamboos, fibre, fuel, leaves and minor forest produce such as honey and fruits, and free access to the forest for shooting and fishing. Grazing was granted them with a free hand, but all their other demands were withheld. Appeals were also lodged by the forest department against the extent of grazing admitted by the settlement officer, and some bad feeling may have arisen, in consequence, between the people and the department, which, in its turn, may have led to the apparently planned fires of this season and those of 1889. But when the settlement is completed and confirmed, and the people know exactly what they have to expect, these causes of discontent will probably cease. Should events however prove otherwise, and such fires be continued as have been noticed in the southern forests this year, it will be advisable to put in force the power conferred on Government by section 25 of the Forest Act and temporarily forbid the exercise of rights in all such areas as are mischievously or carelessly burnt. With the view of bringing before the people their liabilities in this respect, the Commissioner has been addressed with the object of having printed circulars and notices distributed among all head men and villagers residing near the forests, and it is hoped that when it becomes known that the exercise of all forest rights may temporarily be withdrawn from them, the people will abstain from their present acts of wantonness or will assist the department in bringing the offenders to justice.

Grazing and Fencing.

31. The following cattle were grazed in the reserves, of which details will be found in appendix C.

Buffaloes	57
Bullocks	10,350

32. Of the above, only 57 buffaloes and 707 bullocks paid grazing dues; the others being admitted by right on decisions of the settlement officer, and in regard to these latter it may be observed that in many cases they exceed in number, the cattle reported to have been grazed by private owners in former years. This latter fact, coupled with other reasons, gave rise to several appeals being lodged by the forest department against the settlement decisions, which, although not yet finally decided, there is reason for hoping, may result in the rights allowed being considerably modified. The following statement shews the intensity of grazing allowed under the settlement.

No.	Name of Forest.	Area in acres.	No. of cattle allowed grazing.	No. of cattle per 100 acres.
1	Old Anekadu { Anekadu	6,697	1,400	21
	Old Anekadu { Attur...	5,260	628	12
2	Gadinad	3,764	232	8
3	Bactonkote	800	271	34
4	Dubare	11,363	200	2
5	Devamachi	9,376	157	2
6	Mawukal	8,281	12	·14
7	Arkere	18,262	2,305	13
8	Hatgat	27,520	1,456	5
9	Nalkeri	26,075	2,167	8
10	Urti	6,400	796	12
11	Kerti	12,800	19	·15
	Total.....	1,36,598	9,643	

33. The forests most burdened are Bactonkote, Anekadu, Arkeri, Attur and Urti; and if the figures recorded above, opposite these reserves, be considered in connection with the fact that the grazing grounds consist of forest land, in which the *bona fide* pasture area is limited, and that, especially in Attur and Anekadu, an important proportion of the forest land is inaccessible to cattle, because of a dense undergrowth of lantana, it will become sufficiently obvious that natural reproduction over such areas is not hopeful.

On the other hand no grazing rights have been granted in the Kattepura, Allur, Sandal koti, Malambi, Nidta, Jaincal and Yedavanad forests, aggregating 11,625 acres, and as generally speaking, the more valuable forests of South Coorg are not over-burdened with such rights, it will be feasible to make satisfactory arrangements for these areas in future.

The value of the grazing rights calculated at the moderate rate of four annas a head comes to Rs. 2,411.

Natural Reproduction.

34. The chief drawbacks to natural reproduction in the Coorg forests are fires, overgrazing, and dense undergrowth. Both of the latter obstacles have been frequently noticed in previous reports, and except over limited areas and very gradually, it will be difficult to overcome their deterrent effects. Generally speaking, wherever the forests are protected from fire and grazing, and the cover is not too dense, reproduction of all the good timber species, except teak, is fairly hopeful, and no measure beyond protection, assisted by a little weeding, will be necessary for increasing the proportion of such woods as *P. Marsupium*, *T. Tomentosa* and *D. Latifolia*.

35. But the same remark is unfortunately not applicable to teak, which for some reason not yet decided, is conspicuously absent in any abundance among the seedling growth. A careful search in the teak forests of both North and South Coorg, during the past season, for seedlings of the previous rains, was unsuccessful, and the same remark is true of seedlings of three or four years growth. Teak plants which at first were taken for young seedlings, proved, on examination of their roots, to be several years old, and even such plants are by no means numerous. In the forests of South Coorg, this absence of young growth is doubtless, in part, owing to exclusion of light caused by the dense cover of *Bambusa*, *Grewia* and *Helieteres*; seed bearing teak trees are however in such parts of the forest very scarce and scattered. But in the more open forests, where the cover conditions are not unfavorable, where sufficient seeders are present and grazing is not excessive, the same absence of seedling growth is nearly as remarkable. Last year, this may be explained, so far as South Coorg is concerned, by a failure of seed; but this cause cannot have been constant, and the explanation for the absence of teak plants under 10 years of age must be looked for in other directions. It seems likely that the more open teak forests of South Coorg have been among those areas in which fire protection has been least successful, and that the seed has been destroyed time after time before the season for *germination. In these forests also a large proportion of the seeders are very old trees, and it may be that the crop usually is scanty, and perhaps in great part, sterile. Observations will be made to test these points.

36. In North Coorg, the principal obstacles are overgrazing, and the presence of the lantana weed, which latter, in some of the reserves, has covered the ground with dense thickets of thorny matting, under which teak has no chance whatever. Teak in any quantity, is found only in the forests of Attur, Anekadu and Dubare. In the first two, cattle are admitted under the decision of the settlement officer, in the

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* A reference to back records proves that the following areas were burnt in the teak zones of Hatgat and Nalkeri during the years 1886 to 1890.

1886	...	...	...	7,447 acres.
1887	...	...	...	19,000 „
1888	...	...	...	342 „
1889	...	...	...	14,000 „
1890	...	...	...	2,500 „

proportions of 12 and 21 head per 100 acres, and as much of these areas, especially in the former forests, is overgrown with lantana, and is, in consequence, inaccessible to cattle, the result of grazing over the accessible and open portions, where reproduction would have some chance, becomes intensified. But even in that part of the Anekadu reserve which has been closed against grazing for the last four years, and where seedlings of other good species are well represented, teak reproduction is disappointing. This particular area, however, was burnt in 1889. In the Dubare forest, especially in the eastern part, a little teak reproduction was noticed, but not in proportion to the local conditions. In the neighbourhood of the Cauvery river, on the northern border of this reserve, reproduction of other good species is most excellent.

In regard to teak, I think it will be necessary to supplement mere protection with active sylvicultural operations, such as sowing or planting. In parts, it may be practicable, as suggested by the Inspector General of Forests, on his late visit to Coorg, to get this work done by allowing the jungle tribes to *kumri* inferior forest areas, on the condition, as in Burmah, that they raise a certain number of teak plants in their fields, and every effort will be made in this direction. But much good work may also be done departmentally by sowing or planting up blanks in the forest, or by introducing a proportion of teak, by sowing or planting lines, through the forest, where, owing to its density, natural reproduction cannot be expected to succeed. Work of this kind would doubtless be more or less patchy; and the cost, if divided over each individual tree would be more perhaps than if incurred on trees planted *enbloc* as has been the custom. But the proportion of mature teak so raised would probably be greater than in plantations properly so called, and this proportion would be distributed over the forest as a mixture instead of growing on a limited area as a pure crop.

37. The natural reproduction of sandal is also encouraging in certain localities, the most essential conditions, apparently, being the exclusion of fire and cattle. In an area of village forest adjoining the Jainkal reserve, and which has been obtained by exchange and added to this latter since the close of the year under report, this valuable species has established itself naturally in the most successful manner. The growth is quite young, from 1 to 15 years old, is situated on a steep rocky hill side, where the pasture is too poor to attract cattle or deer, and on which there are *pockets* of good soil well mixed with leaf mould the result of continued escape from fire, which, in this case, has been owing to fortuitous circumstances. The only other area, in which sandal shews signs of spreading, is the Nidta forest, where the thorny character of much of the undergrowth has doubtless been the means of protecting the plants from cattle and deer.

It seems probable that wherever mature sandal trees are fairly numerous, protection from fire and cattle will be sufficient to insure the establishment of a proportion of this species in the neighbouring forest, especially as the fruit is greedily eaten and well disseminated by birds. The plantations formed by my predecessor, when they attain a seed bearing age, may confidently be expected to become valuable centres of distribution in this respect.

Artificial Reproduction.

38. The plantations were extended during the year as follows:—*Vide* Form 52.

Sandal	..	..	..	78 acres.
Teak	..	..	..	56 „
Fuel	..	..	..	13 „
			Total	147 acres.

But of the sandal area added, 23 acres were burnt and destroyed in February last, so that the net addition under this head was only 55 acres.

39. The total area of regular plantation now stands as follows:—

Sandal	..	..	..	427 acres.
Teak	..	..	..	886 „
Fuel	..	..	..	138 „
			Total	1,451 acres.

40. In this connection, it is necessary to explain certain discrepancies between the figures of Form 52 for this and the previous year.

The statement attached to last year's report shewed a closing sandal area balance of 395 acres, whereas the opening balance for this year exhibits only 372 acres. The difference of 23 acres is on account of the Bakka plantation, which was destroyed by fire in February 1889 and should have been deducted from the area total for that year. This plantation was subsequently resown in the rains of 1889, but was again unfortunately destroyed by fire in February last. It is shewn both as an addition and deduction in the statement for the year under report.

The areas of old bambu land that were sown with teak seed have been excluded from the regular plantations and transferred to head *cultural operations.*

41. Under this latter head, the areas sown in the Dubare and Maldare forests in 1888 were resown in the rains of 1889, but with only very small success, and the few plants that resulted from the experiment were destroyed by the fires mentioned in paragraph 24 of this report. These areas have therefore been excluded from the register. In the Mawukal forest, a similar operation was extended by 11 acres, but the work was practically a failure, and the whole of this area has also been struck off in the statement.

42. Form 52 shews a total expenditure for the year of Rs. 9,871, which may be divided over the work as follows :—

Description.	Up keep of old area.	Additions.	Preparing ground in part for plantations of 1890.
	Rs.	Rs.	Rs.
Sandal	2,763	903	322
Teak	2,375	1,093	458
Fuel	643	393	...
Cultural	229	420	...
Purchase of wire fence	...	...	272
	6,010	2,809	1,052

Divided over the acreage, the above figures give the following result :—

Description.	Up-keep per acre.				Additions per acre.			
Sandal	372 acres. / 2,763 Rs.	7	6	0	78 acres. / 903 Rs.	11	9	0
Teak	830 acres. / 2,375 Rs.	2	13	0	56 acres. / 1,093 Rs.	19	8	0
Fuel	125 acres. / 643 Rs.	5	2	0	13 acres. / (393 Rs.–269 Rs.)	9	9	0

The large outlay on upkeep shown against the sandal plantations, is owing to an unusual expenditure of Rs. 800 on account of ditching and erection of wire fencing to keep out deer and cattle from the plantations of Herikeri, Bakka and Gangwara.

43. In accordance with the views expressed in Revenue and Agricultural Department Circular No. 35 F, of the 17th October 1889, a statement is attached to this report, as Appendix E, shewing the total expenditure incurred on the work of artificial reproduction up to date. No remarks are offered on the figures recorded therein, as it is believed the subject will be fully treated by the Inspector General of Forests, in his report on the Coorg forest inspection.

Cutting of creepers and forest weeding.

44. Climbers were cut out and a weeding of inferior species made in all the *coupes* of the following forests from which timber had been previously felled.

The weeding operation is of doubtful utility as performed in some of the more open teak forests, where, if any thing, the canopy is already too interrupted, and it is intended to restrict the work in future either to the denser portions of the forest, or to the weeding out among the undergrowth of the better kinds of seedling reproduction.

	Acres.	Rs.	A.	P.
Nalkeri	327	91	0	0
Hatgat	32	10	0	0
Arkeri	160	41	0	0
Dubare	106	40	0	0
Anekadu	100	28	0	0
Yedavanad	200	50	0	0
Gangwara	63	12	0	0
Devamachi	104	35	0	0
Total.....	1,092	307	0	0

Exotics.

45. *Grevillea Robusta* continues to do well in the Merkara fuel plantations, where also *Cupressus Torulosa* and *Frenola Rhomboidea* are fairly successful if they survive the first season. The Casuarina, with which species a large proportion of the total area has been planted, is, except in sheltered localities, a failure. It cannot stand the weathering and exposure to which it is subject on these hills during the monsoon, and developes into a low scrubly suppressed bush instead of the tall rapidly growing tree of Mysore and Madras, where it is successfully grown for fuel. The area planted up with this tree will have to be replanted either with *Grevillea* or *Acrocarpus*, a quick growing local species.

Communicaions.

46. No new roads were made during the year. And the only work of any extent performed under this head was the annual repairs to the forest cart track connecting the Nalkeri—Hatgat reserves with the market depot at Hunsur. This road is 32 miles long; to keep it in repair cost Rs. 670 as follows:—

Draining 4½ miles with ditches and check drains	Rs.	85	0	0
Forming 8 miles		264	0	0
Collecting and spreading gravel over 10 miles		321	0	0
	Rs.	670.		

A further sum of Rs. 345 was expended on petty repairs as follows:—

Repairing and gravelling the Menukolli cart road for extraction of fuel	Rs.	63	0	0
Repairing cart tracks in Dubare forest for extraction of timber including building of bridge		73	0	0
Repairing road in the Devamachi reserve for do		73	0	0
Repairing road in Arkeri forest		16	0	0
Repairing branch roads in Nalkeri forest		37	0	0
Repairs to road in Hatgat forest		37	0	0
Repairs to road between Herikeri and Banwara		24	0	0
Repairs to road through the Kutompole plantation		22	0	0
	Rupees...	345	0	0

47. The road between the Nalkeri—Hatgat forest and the market is still capable of improvement, and as it has been decided to indefinitely postpone the construction of a tramway on this line, it will be advantageous to give the former matter attention. A short section of the road, of about 7 miles, should be metalled and the road more systematically drained throughout its length; but even in its present condition, logs of teak measuring over 70 cubic feet have been brought out on it during the past season.

Buildings.

48. The following is a summary of the expenditure incurred under this head:—

		Rs.	A.	P.
Kutompole and out-houses ...	Roofing with Mangalore tiles ...	334	2	5
Murkal tank	Throwing earth to the bund ...	28	10	8
Kargodu bungalow	Roofing with Mangalore tiles ...	76	4	0
Nagraholay	Wellrings	50	6	4
Nalkeri	Digging well and bungalow repairs ...	45	13	8
Karmad	Do do ...	55	11	8
Hatgat Murkal	Bungalow repairs	61	4	0
Arkeri	Do do	3	8	0
Tittimutti	Do do	10	8	0
Maldare	Well rings and do	6	8	0
Anekadu	Bungalow, cattle shed, &c, repairs... ...	31	6	0
Dubare	Do repairs	27	8	4
Herekeri	Do repairs	49	0	0
Gangwara	Hut repairs ...	5	0	0
Banwara	Pound repairs ...	5	8	0
Ramaswamy kanve	Stables, &c., repairs ...	9	8	0
Merkara plantation	Hut repairs ...	35	8	0
	Total Rs.....	827	3	1

The only items calling for remark are the repairs carried out on the Kutompole bungalow and out-houses which were roofed during the year with Mangalore tiles. This house is situated in the western ghats and exposed to the full force of the south-west-monsoon and a falling of nearly 200 inches of rain. It was found necessary to re-place the old roof of common country tiles with something more substantial and weather proof. These tiles are expensive, and the entire cost of the work when finished will be about Rs. 450.

A similar work was commenced at Kargodu, which is also within the zone of heavy rain fall. The remainder of the expenditure was incurred on ordinary repairs.

CHAPTER IV.

Yield and Working. Departmental Operations.

General Remarks.

49. The following comparative statement shews the out-turn brought on stock by departmental agency during the past two years—Forms 53 and 54.

Year.	Trees felled.	Cubic feet.	Sandal.	Bambus.
1888—89	2,827	1,39,351	67 tons	5,818
1889—90	1,833	70,196	60 tons	9,600

Timber.

50. Of the above timber, 1,245 cubic feet were felled in protected forests—Form 54.

And of the total felled, 58,708 cubic feet were brought to selling depots—Form 56.

Some of the inferior teak logs=11,809 cubic feet, the result of teak coppicing in the Attur forest, were sawn up and converted into scantlings as exhibited in the same Form. But the transaction resulted in a wastage of 5,067 cubic feet, and in sawn out-turn of such inferior quality that the experiment will not be repeated.

The transfers from one selling depot to another were represented by 38,269 teak scantlings or 6,347 cubic feet principally the outcome of the above conversion of logs in the Fraserpet depot.

51. Timber felling was restricted during the past season, in consequence of the large balance of wood in hand that remained over from last year, both at selling depôts and in the forest, coupled with the fact that the decrease in current sales, especially retail sales, shewed a falling off in the market demand. The following statement shews the sales and average prices realized at Hunsur—our chief selling depôt—during the last five years.

Sold at Hunsur depot.	1885—86.			1886—87.			1887—88.			1888—89.			1889—90.		
	Cubic feet.	Amount.	Average per cubic foot.	Cubic feet.	Amount.	Average per cubic foot.	Cubic feet.	Amount.	Average per cubic foot.	Cubic feet.	Amount.	Average per cub c foot.	Cubic feet.	Amount.	Average per cubic foot.
Teak logs and scantlings	21,212	19,013	0 14 4	16,435	14,343	0 13 11	52,989	49,438	0 14 11	26,873	24,076	0 14 4	25,283	22,252	0 14 1
Honne	3,238	3,528	1 1 5	10,984	7,668	0 11 2	12,118	7,509	0 9 11	14,334	10,957	0 12 2	11,149	7,532	0 10 9
Other wood	4,543	1,266	0 4 5	7,827	3,591	0 7 4	13,762	4,719	0 5 6	19,009	8,880	0 7 5	11,471	5,476	0 7 7

The figures shew the falling off to be chiefly under Honne and inferior woods; and it may be noted that at an auction held after the close of the year there was no improvement in this respect, the sales realizing only about Rs. 3,000 instead of Rs. 10,000 as usual. The probable causes of this falling off are discussed in paragraph 63.

52. The statement in the Appendix pages 1 and 2 and Form 56 together shew the following stock on hand at close of the year :—

Description.	In depot.	In forest.	Total.
Teak	21,164 c. ft.	43,919 c. ft.	65,083
Honne	12,411 „	40,355 „	52,766
Other woods	10,908 „	47,742 „	58,650
Scantlings	12,887 „	...	12,887
Total.....	57,370 „	1,32,016 „	1,89,386

These figures represent about three years sale requirements. But it may be remarked that, the timber exhibited as present in the forest does not appear to have been checked or adjusted for some years past, and it is probable that, when stock is taken, some portion of it will have to be written off as burnt or unmarketable. This work is now in hand, but until it is completed, the Chief Commissioner's sanction has been obtained to stop felling operations throughout the charge, a step which has been considered justified, because of the timber on hand being sufficient to meet any likely developement in the market demand, and because stock taking cannot be performed satisfactorily while fellings are also in progress.

Bambus.

53. The number of bambus brought to depot was 8,375 against 5,818 last year.

Sandalwood.

54. The out-turn under this head was 2,271 trees, yielding 48 tons of good and 12½ tons of inferior wood. The number of trees to the ton of good wood was 47, compared with 51 last year.

The cost of collecting was Rs. 18—12—0 per ton.

The estimated yield of sandal for the next 14 years is 60 tons, including inferior wood.

In Forms 53 and 54, the sandal out-turn of 60½ tons, for convenience sake, has been reduced to cubic feet by dividing the above weight by 55 lbs—the average weight of a cubic foot of seasoned wood.

Removal of produce by purchases.

55. Under timber and fuel, Form 54 shews that the equivalent of 2,14,533 cubic feet was removed, of which rather more than half, or 1,13,365 cubic feet was taken from the reserves, and 1,011,168 cubic feet from the protected forests.

The above out-turn in most respects was similar to that of the previous year, but owing to last years details being recorded under different denominations it is not easy to make a general comparison. The detail of the out-turn is as follows:—

396 trees	=	22,995 cubic feet	..	Rs. 1,611
7,715 poles	=	34,713 „	...	„ 3,183
5,833 carts fuel	=	1,56,825 „	...	„ 1,917
		2,14,533 cubic feet		Rs. 6,711

Bambus.

56. Two lakhs sixty-eight thousand five-hundred and forty one bambus were removed by puschasers as against 2,28,572 in 1888—89. The demand on our forests for this produce is gradually increasing.

Free grants.

57. The following produce was removed.

51 trees	=	2,550 cubic feet.
244 poles	=	1,098 „
Total 3,648		valued at Rs. 255.

58. No produce was removed by right holders. But Form 55 shews that 9,643 cattle were admitted into the reserves without payment, and that the right was valued at Rs. 2,411.

Timber sales on waste land purchased.

59. The recoveries on account of land sold for coffee came to Rs. 2,182. But this amount was entirely on account of outstandings of previous years. No portion of the current years demand of Rs. 1,680 was collected. A further sum of Rs. 3,196 was recovered from timber on lands sold or given out for other cultivation or for building sites, &c.

60. Before closing this portion of the report, it will be well to explain that the discrepancy of 147 logs in the closing and opening balances of 1887—88 and 1888—89, remarked on by the Government of India, in their review on last year's report, was occasioned partly by the Government of India Office, quoting the figures of the grant total, including 197 poles, instead of the log total, and partly to an item of 50 logs having been incorrectly added to the opening log balance of 1888—89 instead of being shewn under receipts for that year, thus:—

Closing log balance of 1887—88 as per Government of India review ...	4,520
Deduct 197 poles inadvertently included in above	197
Balance as per Appendix to report 1887—88	4,323
Add for 50 logs included in opening balance of 1888—89 instead of being shown under receipts	50
Opening log balance of 1888—89 as per Appendix attached to report ...	4,373

Cardamom Males.

61. Five new *malés* were leased during the year for a term of five years and upwards, for rents aggregating Rs. 57. The cardamom yield was a very poor one and coupled with short prices necessitated a postponement of rent payment as explained in paragraph 63 in the following section of this report.

The summary of produce removed from the forests is scarcely applicable to this circle which consists of one division. The removals are treated in detail under the heads "departmental operations," &c. The summary would appear to be required only in the large circles, consisting of several divisions.

The following figures represent the exports of timber, &c. There were no imports.

Export statement for 1889—90.

Description of wood.	Quantity.		Amount.			Remarks.
	No.	Cubic feet.				
Teak logs	880	22,986	18,625	4	3	
Honne logs	517	13,141	8,807	4	2	
Other wood logs	537	12,801	6,039	12	6	
Teak scantlings	6,236	2,729	4,035	5	7	
Miscellaneous trees	319	...	1,405	2	6	The timber poles, bambus, and minor forest produce, were all exported to Mysore. The sandal and cardamoms probably found their way to Mangalore for export to Bombay.
Do poles	5,306	...	3,745	0	0	
Sandalwood tons	59	...	22,903	0	9	
Bambus	1,84,611	...	2,304	0	0	
Cardamoms	...	...	8,323	0	0	
Minor forest produce ...	...	...	1,541	0	0	
Total.....	1,98,465	51,657	77,728	13	9	

CHAPTER V.

Financial results.

62. The financial results of the year were not satisfactory.

The following statement shews the difference between the figures of the year under report, and those of last year, which was the best on record :—

Year.	Receipts.	Charges.	Surplus.
1888—89 ...	1,36,183	A=53,425 B=26,750 } =80,175	56,008
1889—90 ...	92,753	A=44,069 B=28,351 } =72,420	20,333
Minus difference.....	43,430	...	35,675

63. There was a gross falling off in receipts of Rs. 43,430, and a net falling off in surplus of Rs. 35,675, accounted for as follows:—

Under R I—a, the revenue fell short of that of last year by Rs. 16,800, owing partly to short sales of timber and to non-recovery of sale values within the year. But the greater portion of the above falling off was owing to the former cause; and on enquiry, it would appear that, the smaller demand for timber was owing to the cessation of what must be considered the unusual market requirements of the two former years, coupled with a successful competition on the part of Madras

dealers. It was only during the years 1887—89, as will be seen on reference to the figures of the foot note, that the receipts under this head ever largely exceeded Rs. *40,000, and that they did so in those two years, was entirely owing, in the first place to the construction of large public buildings in Mysore started as Jubilee works, such as the Town Hall, New Market Place and School House, the timber for which, I am informed, was purchased at the Hunsur sales; and secondly, to the considerable purchase (above 8,000 cubic feet) made by a Hunsur contractor, who cut up the timber to specification and supplied it to Engineers on the Kolar gold mines. The above public works, however, have been completed, and no other similar ones have been started, and Mr. Hay, the contractor above mentioned, informs me that he is no longer able to supply the Kolar demand with profit, owing to the Madras railway having lowered its freight charges on timber and enabled Palghat dealers to successfully compete with him. It may also be mentioned, as shewing the slackness of the demand that wood worth Rs. 3,400 that had been purchased at our auction sales, and on which a 10 per cent deposit had been paid, was thrown back on our hands and the deposit forfeited.

Under R I—d, sandalwood, the falling off of Rs. 490 was owing to an outstanding not recovered during the year. The estimated sales and prices were realized.

Under R II—a, there was a falling off of Rs. 817 owing to the sales of the year not being completed in consequence, most probably, of an influenza epidemic, which was very prevalent towards the closing months of the year. Letters of advice, or sale, had been issued for a rather larger sum than last year, but something prevented the drawers from acting on them, and the year closed with an outstanding on this account of Rs. 1,150.

SECRETARIAT LIBRARY

Under R II—b, there was a minus difference of 396, but the collection for the year was well above the average for the three previous years.

Under R II—d, there was a falling off of Rs. 541; but the amount realized was much in excess of average collections of the past three years.

Under cardamoms, there was a large difference of Rs. 14,792. The demand for the year under the current leases was Rs. 25,902; but owing to the continuance of low prices, coupled, during the year under report, by a very poor crop—the result of late rains in 1889—a postponement of the demand, to the extent of half rent, was sanctioned by the Chief Commissioner on all *malés* paying Rs. 100 per annum and upwards. This postponement of rent accounts for a falling off in revenue of Rs. 10,000 and the balance is owing to the moiety of rent payable, not having been fully recovered within the year. In reference to this matter Colonel Clarke, Commissioner of Coorg, writes in his No. 69—235 of the 9th January 1890 to the address of the Secretary to the Chief Commissioner as follows:—

"The cardamom *malés* or plots were leased afresh in 1886—87 for varying periods of 7, 14 and 21 years, the result being that the revenue was raised from an annual average of Rs. 21,260 to Rs. 27,847. In former days cardamom cultivation furnished large profits, the price being about three times the present selling rate of Rs. 20 per maund of 28lbs, and the possession of the plots by Coorg families is still valued. There was thus a keen competition for them. The rule was followed however, at the settlement, 1886—87, of granting the leases, not necessarily to the highest bidder, but to local ryots who could afford to make reasonably good offers, for although the price of cardamoms had fallen in the market to Rs. 17 per maund in that year, the expectation or hope was that the fall was temporary. In the following year, the maximum

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*Receipts under R. I—a.

1880—81	...	...	...	Rs.	13,451
1881—82	...	...	...	„	10,605
1882—83	...	...	...	„	26,244
1883—84	...	...	...	„	36,877
1884—85	...	...	...	„	43,367
1885—86	...	...	...	„	32,953
1886—87	...	...	...	„	35,344
1887—88	...	...	...	„	56,940
1888—89	...	...	...	„	60,360
1889—90	...	...	...	„	43,560

price however fell to Rs. 16 per maund, and during the past year it ranged from Rs. 16 to Rs. 20 per maund. The consequences to the large lessees have, I am aware from facts which have come to my knowledge from time to time, been very disastrous." Unfortunately, the low price now obtainable for this produce is said to be the result of extended cardamom cultivation in Ceylon, and as the market is not supposed to be a very elastic one, owing to a limited demand, it does not seem very likely that the old prices will be again realized.

Under V-C, the receipts failed to reach the actuals of last year by Rs. 9,583 owing partly to the non-realization of outstanding revenue due to the department by purchasers of waste land, and to a sum of Rs. 1,860 being written off with the approval of the Chief Commissioner in consequence of the cancellation of a sale. But the receipts of the previous year were unusually large owing to the recovery of many outstandings on account of former years.

It may be noted that the receipts under the two last heads are collected through the revenue department.

64. Under expenditure A-I, the allotment for timber was not worked up to, owing to a break down in the carting arrangements caused by wide spread sickness among the employés. Some restriction was also placed on felling operations, in consequence of slack sales and the large quantity of timber on hand either at selling depots or in the forest.

There was also a saving of Rs. 2,517 under head demarcation, owing to the settlement of the ghat forests not being carried out as explained in paragraph 66.

65. The following table shews the figures of Coorg receipts and expenditure during the past five years.

Year.	Receipts.	Charges.	Surplus.
1885—86	89,386	65,690	23,696
1886—87	99,291	74,088	25,203
1887—88	1,27,028	72,629	54,399
1888—89	1,36,183	80,175	56,008
1889—90	92,753	72,420	20,333

It will be seen that the surplus of the past year is much the smallest that has been realized during the above period; but it has been explained that this poor financial result has been the outcome of circumstances beyond departmental control. A reference to Forms 57 and 60 will also shew that, as compared with last year, the net difference in outstanding revenue amounts to Rs. 14,964 in favor of the year under report.

CHAPTER VI.

General Remarks.

66. The forest settlement, so far as an enquiry into claims and record of decisions are concerned, has been completed for all the eastern forests, and for Urti, Kerti, Arkomale and Quinad in the western ghats. But as mentioned in other places, the settlement officer's decisions have not been accepted in all cases, and there will probably be some delay before the rights of the people are confirmed and the subject definitely settled. An enquiry was also sanctioned into the rights enjoyed by residents in the ghat protected forests; but owing to the officer appointed being unable owing to ill health to carry on the work, and no substitute being available, the settlement of these forests has had to be postponed. The expenses incurred on settlement will be found in Appendix D.

67. The departmental officials as a body have worked fairly well. Ranger K. Ponnappa was very successful in protecting the whole area under his charge, with the exception of some 37 acres from fire. He was promoted from Rs. 50 to Rs.60 during the year.

Ranger P. Atchiah, who holds charge of the southern forests, where fire protection is a more difficult and uncertain work than in North Coorg, was also fairly successful and deserves commendation.

The Deputy Conservator also desires to acknowledge the services of his office establishment, who have worked satisfactorily.

J. McKEE
Deputy Conservator of Forests, Coorg.

COORG DEPUTY CONSERVATOR'S OFFICE,
Merkara, the 5th July 1890.

List of Appendices to the Forest Report for 1889—90.

Form No.	Name of Form.
	Appendices.
—	Trees felled by Government Agency during the year 1889—90
A	Statement shewing the condition of the boundaries, &c.
B	Cases in which subordinates were punished.
C	Return of grazing in the State forests.
D	Progress made on forest settlement.
E	Statement shewing the cost of plantations.
	Annual returns.
49	Area of Reserved Forests.
50	Prosecutions for breaches of forest rules.
51	Forest tracts protected from fire.
52	Plantation Statement.
54	Out-turn of timber and firewood.
55	Out-turn of minor forest produce.
56	Account of timber and other produce.
57	Abstract shewing the value of timber, &c.
58	Summary of revenue and expenditure.
59	Account current.
60	Revenues received and outstandings, &c
61	Outstandings and liabilities, &c.
62	Financial results

APPENDIX TO PARAGRAPHS 49 & 52.

FOREST DEPARTMENT, COORG.

Trees felled by Government Agency during the year 1889—90.

Name of Forest.	Description of wood.	Balance of stock.		Brought on stock during the year.			Total.		Issues.		Balance remaining in stock in forest.	
		No.	C. ft.	No. of trees.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.
Allur Malambi in Nidta.	Honne ...	74	2,116	14	14	279	88	2,395	18	323	70	2,072
	Other wood ...	43	1,699	25	33	595	76	2,294	14	405	62	1,889
		117	3,815	39	47	874	164	4,689	32	728	132	3,961
Yedavanad ...	Teak ...	12	865	...	...	...	12	865	...	...	12	865
	Honne ...	113	5,549	42	56	875	169	6,424	14	131	155	6,293
	Other wood ...	72	1,914	44	54	1,087	126	3,001	22	278	104	2,723
		197	8,328	86	110	1,962	307	10,290	36	409	271	9,881
	Do poles ...	4	...	...	...	...	4	...	...	...	4	...
		4	...	...	...	...	4	...	...	...	4	...
Gadinad ...	Teak ...	3	80	...	...	...	3	80	...	...	3	80
	Other wood ...	44	1,305	...	...	...	44	1,305	...	...	44	1,305
		47	1,385	...	...	...	47	1,385	...	...	47	1,385
Jainkal ...	Teak ...	136	1,201	..	...	...	136	1,201	...	...	136	1,201
	Honne ...	1	29	...	...	...	1	29	...	...	1	29
	Otehr wood ...	1	7	...	...	...	1	7	...	...	1	7
		138	1,237	...	...	...	138	1,237	...	...	138	1,237
Anckadu ...	Teak ...	13	544	35	48	693	61	1,237	42	742	19	495
	Honne ...	20	337	24	27	695	47	1,032	11	290	36	742
	Other wood ...	7	287	9	10	204	17	491	...	...	17	491
		40	1,168	68	85	1,592	125	2,760	53	1,032	72	1,728
	Bambus ...	2,341	...	...	9,600	...	11,941	...	8,375	...	3,566	...
		2,341	...	...	9,600	...	11,941	...	8,375	...	3,566	...
Attur ...	Teak ...	508	7,050	414	854	12,708	1,362	19,758	843	11,116	519	8,642
	Honne ...	68	1,963	14	16	310	84	2,273	20	550	64	1,723
	Other wood ...	34	1,116	2	2	30	36	1,146	...	...	36	1,146
		610	10,129	430	872	13,048	1,482	23,177	863	11,666	619	11,511
Nallur ...	Honne ...	17	710	25	36	1,245	53	1,955	53	1,955	...	...
	Other wood ...	11	533	...	...	...	11	533	11	533	...	...
		28	1,243	25	36	1,245	64	2,488	64	2,488	...	...
Bactankote ...	Teak ...	2	26	...	...	...	2	26	...	...	2	26
	Honne ...	40	356	114	185	4,962	225	5,318	76	2,045	149	3,273
	Other wood ...	72	1,103	27	40	1,010	112	2,113	18	518	94	1,595
		114	1,485	141	225	5,972	339	7,457	94	2,563	245	4,894
Dubare ...	Teak ...	150	2,407	126	192	4,180	342	6,587	40	885	302	5,752
	Honne ...	243	5,292	18	26	695	269	5,987	13	416	256	5,571
	Other wood ...	206	4,259	6	13	272	219	4,531	3	61	216	4,470
		599	11,958	150	231	5,147	830	17,105	56	1,312	774	15,793
Devamachi ...	Teak ...	18	316	2	3	62	21	378	6	148	15	230
	Honne ...	107	2,827	36	46	1,579	153	4,406	26	793	127	3,613
	Other wood ...	85	1,760	11	16	466	101	2,226	9	206	92	2,020
		210	4,903	49	65	2,107	275	7,010	41	1,147	234	5,863
	Do poles ...	176	...	...	...	...	176	...	...	...	176	...
		176	...	...	...	...	176	...	...	...	176	...
Mawukal ...	Teak ...	127	2,080	5	6	171	133	2,251	37	1,116	96	1,135
	Honne ...	167	3,289	42	56	1,713	223	5,002	117	2,208	106	2,794
	Other wood ...	525	9,711	53	83	1,803	608	11,514	142	3,190	466	8,324
		819	15,080	100	145	3,687	964	18,767	296	6,514	668	12,253
	Do poles ...	8	...	...	...	...	8	...	...	...	8	...
		8	...	...	...	...	8	...	...	...	8	...
Arkeri ...	Teak ...	38	543	3	4	103	42	646	...	...	42	646
	Honne ...	260	3,473	17	23	648	283	4,121	16	410	267	3,711
	Other wood ...	140	2,753	24	28	858	168	3,611	5	146	163	3,465
		438	6,769	44	55	1,609	493	8,378	21	556	472	7,822

APPENDIX TO PARAGRAPHS 49 & 52.—*Continued.*

Name of Forest.	Description of wood.	Balance of stock.		Brought on stock during the year.			Total.		Issues.		Balance remaining in stock in forest.	
		No.	C. ft.	No. of trees.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.
Hatgat ...	Teak	222	9,536	91	141	3,688	363	13,224	181	5,907	182	7,317
	Honne	195	4,231	118	196	5,311	391	9,542	118	3,262	273	6,280
	Other wood ...	79	1,683	71	140	3,436	219	5,119	80	2,186	139	2,933
		496	15,450	280	477	12,435	973	27,885	379	11,355	594	16,530
	Do poles ..	9	...	...	...	...	9	...	...	...	9	...
		9	...	...	...	...	9	...	...	...	9	...
Nalkeri ...	Teak	685	18,411	178	273	9,655	958	28,066	327	10,536	631	17,530
	Honne	280	6,132	74	98	3,058	378	9,190	145	4,936	233	4,254
	Other wood ...	680	15,547	169	266	7,805	946	23,352	198	5,978	748	17,374
		1,645	40,090	421	637	20,518	2,282	60,608	670	21,450	1,612	39,158
	Grand Total.....	8,036	1,23,040	1,833	12,585	70,196	20,621	1,93,236	10,980	61,220	9,641	1,32,016
Abstract.	Teak	1,014	43,059	854	1,521	31,260	3,435	74,319	1,476	30,400	1,959	43,919
	Honne	1,585	36,804	538	779	21,370	2,364	57,074	627	17,319	1,737	40,355
	Other wood ...	1,999	43,677	441	685	17,566	2,684	61,243	502	13,501	2,182	47,742
	Total.....	5,498	1,23,040	1,833	2,985	70,196	8,483	1,93,236	2,605	61,220	5,878	1,32,016
	Other wood poles ...	197	...	...	...	...	197	...	...	...	197	...
	Bambus	2,341	...	...	9,600	...	11,941	...	8,375	...	3,566	...
	Total.....	2,538	...	...	9,600	...	12,138	...	8,375	...	3,763	...

APPENDIX A.

FOREST DEPARTMENT, COORG.

Statement showing the condition of the boundaries of State forests.

Name of Forest.	Artificial boundaries, external and internal.						Natural external boundaries.			Artificial boundary lines cleared.				Boundary marks.										Cost of work.		Remarks.
	Length of external boundaries at the commencement of the year.	External (artificial) boundaries added during the year.	Total length of external artificial boundaries.	Length of internal boundaries at the commencement of the year.	Internal boundaries added during the year.	Total length of internal artificial boundaries.	Length at the beginning of the year.	Added during the year.	Length at close of the year.	Lenth of new lines cleared during the year.	Length of old lines cleared during the year.	Length of lines left uncleared.	Total length of lines maintained.	Total No. at commencement of the year.		No. added during the year.		Total to be maintained.		No. in good condition at close of the year.		No. requiring repairs.		New work done.	Repairs of existing boundaries.	
														Ditches and mounds.	Survey stations.	Ditches and mounds.	Survey stations.	Ditches and mounds.	Survey stations.	Ditches and mounds.	Survey stations.	Ditches and mounds.	Survey stations.			
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	Rs.	Rs.	
RESERVED FORESTS.																										
Sandal koti	4	...	4	...	...	...	...	...	...	...	4	...	4	...	53	...	...	...	53	...	...	...	53	...	2 0 0	
Allur	3	...	3	...	...	...	...	...	...	...	3	...	3	...	55	...	...	...	55	...	...	...	55	...	4 0 0	
Old Ganagur { Malambi ...	35	...	35	...	...	...	...	...	...	...	35	...	35	...	656	...	...	...	656	...	...	...	656	...	45 0 0	
Old Ganagur { Nidta ...	23	...	23	...	...	...	...	...	...	...	23	...	23	...	167	...	...	...	167	...	...	...	167	...		
Old Yadava- { Yadavanad Gadinad...	28	...	28	8	...	8	...	...	...	...	36	...	36	...	218	...	...	...	218	...	...	...	218	...	55 0 0	
nad. { Jainkal ...	5	...	5	...	...	...	...	...	...	...	5	...	5	...	187	...	...	...	187	...	...	...	187	...		
Old Anekadu. { Anekadu ..	21	...	21	...	...	...	...	...	...	...	21	...	21	...	235	...	...	...	235	...	...	...	235	...	22 0 0	
Old Anekadu. { Attur ..	18	...	18	...	...	...	...	...	...	...	18	...	18	...	300	...	...	...	300	...	...	...	300	...	16 0 0	
Bacton kote	3	...	3	1	...	1	...	...	...	...	4	...	4	...	...	...	...	...	...	...	...	...	...	...	...	
Dubare	12	...	12	...	...	...	13	...	13	...	12	...	25	...	115	...	...	...	115	...	...	...	115	18 (a)	39 0 0	(a) Rs. 18 being cost of bringing 100 stones from quary to cart track; not yet erected.
Devamachi	21	...	21	6	...	6	...	...	...	...	27	...	27	8	...	...	...	8	...	8	...	...	...	...	90 0 0	
Mavukal	19	...	19	6	...	6	...	...	...	...	25	...	25	163	...	...	...	163	...	80	...	83	...	53 (b)	75 0 0	(b) Rs. 53 spent on removing 74 boundary stones from the quary; not yet erected.
Arkeri	22	...	22	5	...	5	...	...	...	...	27	...	27	210	...	95	...	305	...	105	...	200	...	44	89 0 0	
Hatgat	19	...	19	5	...	5	...	...	...	...	24	...	24	245	...	...	...	245	...	100	...	145	...	...	53 0 0	
Nalkeri	22	...	22	10	...	10	...	...	...	...	32	...	32	155	...	49	...	204	...	104	...	100	...	12	123 0 0	
Urti and Kerti, Chembu and Quinad	Not known.																					Not known.				
Total.....	255	...	255	41	...	*41	13	...	13	...	296	...	309	781	1,986	144	...	925	†1,986	397	...	528	1,986	127	613 0 0	
PROTECTED FORESTS.																										
Cattipura	5	...	...	...	...	...	1	...	1	...	5	...	6	...	70	...	...	...	70	...	40	...	30	...	2 0 0	
Arkamale	Not known.																					No forest marks.				
Kipalli																										
Ghat forests	190	...	...	...	20	20	...	...	...	20	...	190	210	3,437	...	179	34	3,650	...	213	...	3,437	...	292	...	
Total.....	195	...	...	...	20	20	1	...	1	20	5	190	216	3,437	70	179	34	3,650	70	213	40	3,437	30	292	2 0 0	
Grand Total.....	450	...	255	41	20	61	14	...	14	20	301	190	525	4,218	2,056	323	34	4,575	2,056	610	40	3,965	2,016	419	615 0 0	

Foot Note.—*Maintained as fire lines.

† The marks entered under this column are shown as boundary marks but they are mere survey stations, in many cases not traceable and require to be replaced by proper boundary stones or ditches.

APPENDIX B.

FOREST DEPARTMENT, COORG.

The number of cases in which subordinates had to be punished is given in the following statement:—

How disposed of—	Permanent establishment.				Temporary establishment.					Grand Total.	Percentage on the strength of the subordinate establishment.
	Rangers.	Foresters.	Guards.	Clerks.	Rangers.	Foresters.	Mutsaddies.	Guards.	Clerks.		
Prosecuted	...	...	...	...	...	...	...	...	...	...	
Dismissed from service... ...	...	...	2	...	...	...	...	...	...	2	1·6
Degraded	...	1	...	...	...	...	...	...	...	1	·8
Suspended	...	...	...	...	...	...	2	...	...	2	1·6
Fined	1	7	6	...	...	2	5	2	...	23	18·4
Total.....	1	8	8	...	...	2	7	2	...	28	22·4

APPENDIX C.

Return of grazing in the State forests of Coorg during 1889—90.

Forest.	Area of the forest acres.	Grazing on payment. At full rates. Buffaloes.	Cows & bullocks	Goats & sheep.	Camels.	Other animals.	Fees received.	At privileged rates. Buffaloes.	Cows & bullocks	Goats & sheep.	Camels.	Other animals.	Actuals.	Fees received @ full rates	Free grazing. By right. Buffaloes.	Cows & bullocks	Goats & sheep.	Camels.	Other animals.	Value at full rates.	During pleasure of Government. Buffaloes.	Cows & bullocks	Goats & sheep.	Camels.	Other animals.	Value of fees at full rates.	Remarks.
Sandal koti	276	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...										
Allur	395	...	170	...	...	...	50	...	...	...	...	...	...	...	...	...										
Old Ganagur { Malambi ...	3,732	...	54	...	...	...	20	...	...	...	...	...	...	...	...	...										
Old Ganagur { Nidta ...	2,499	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...										
Old Yedavanad. { Yedavanad.	2,871	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...										
Old Yedavanad. { Gadinad ...	3,764	...	...	...	...	...	...	...	...	...	...	...	...	...	...	232										
Old Yedavanad. { Jainkal ...	1,267	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...										
Old anekadu. { Anekadu ...	6,697	...	24	...	...	...	23	...	...	...	...	...	...	...	...	1,400										
Old anekadu. { Attur ...	5,260	...	...	...	...	...	...	...	...	...	...	...	...	...	...	628										
Bactankote	800	...	...	...	...	...	...	...	...	...	...	...	...	...	...	271										
Dubare	11,363	...	71	...	...	...	71	...	...	...	...	...	...	...	...	200										
Devamachi	9,376	...	239	...	...	...	169	...	...	...	...	...	...	...	...	157										
Mavukal	8,281	...	73	...	...	...	26	...	...	...	...	...	...	...	...	12										
Arkeri	18,262	57	60	...	...	...	70	...	...	...	...	...	...	...	...	2,305										
Hatgat	27,520	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,456										
Nalkeri	26,075	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,167										
Urti and Korti	19,200	...	...	...	...	...	...	...	...	...	...	...	...	...	...	815										
Chembu and Quinad ...	6,400	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...										
Total.....	1,54,088	57	691	...	...	...	429	...	...	...	...	...	...	...	...	9,643	...	...	...	2411						
Kattepura	585	...	16	...	...	...	4	...	...	...	...	...	...	...												
Arkamale	2,500	...	...	...	...	...	...	...	...	...	...	...	...	...												
Kipalli	800	...	...	...	...	...	...	...	...	...	...	...	...	...												
Total.....	3,885	...	16	...	...	...	4	...	...	...	...	...	...	...												
Grand Total.....	1,57,923	57	707	...	...	...	433	...	...	...	...	...	...	...	...	9,643	...	...	...	2411						

Rate 0—4—0 per head.

Appendix D.

FOREST DEPARTMENT, COORG.

Statement showing the progress made in, and expenditue incurred on forest settlements during 1889—90.

Division.	Name of civil district or territory.	Area already settled at commencement of the year.	Areas finally settled during the year. No. and date of Govt. order according final sanction to the settlement.	Name of forest settled.	Area in square miles. In forest accounts.	Area in square miles. In other accounts.	Expenditure incurred during the year as areas finally settled. Entire cost per square mile of areas settled during the year.	Areas undergoing settlement. At commencement of the year. Name of forest.	Area in square miles	Taken in hand during the year. Name of forest.	Area in square miles	Expenditure incured during the year on areas undergoing settlement. In forest accounts for 1888—89.	In forest accounts for 1889—90.	Total.
								RESERVED FORESTS						
								Sandal koti ...	...		...	197 0 10	... ...	197 0 10
								Allur	1		...	... ...	... ...	... ...
								Old Ganaguf. { Malambi.	6		...	327 5 2	... ...	327 5 2
								Old Ganaguf. { Nidta ...	4					
										Old Yedavanad { Yedavanad	4			
										Old Yedavanad { Gadinad...	6	... ...	292 2 10	292 2 10
										Old Yedavanad { Jainkal ...	2			
								OldAnekadu. { Anekadu.	11	OldAnekadu. { Anekadu.	11	139 6 10	468 12 9	608 3 7
								OldAnekadu. { Attur ...	8	OldAnekadu. { Attur ...	8			
										Bactonkote ...	1	... ...	95 6 10	95 6 10
								Dubare	18			81 2 9	... ...	81 2 9
								Devamachi ...	15	Devamachi ...	15	81 2 9	42 6 5	123 9 2
								Mavukal ...	13			125 11 4	... ...	125 11 4
								Arkeri	29			128 11 5	... ...	128 11 5
								Hatgat	43			135 11 4	... ...	135 11 4
								Nalkeri	40			127 11 5	... ...	127 11 5
										Urti and Kerti ...	30	... ...	141 12 2	141 12 2
										Chambu and Quinad.	10	... ...	... ...	... ...
										Total Rs.....	...	1,343 15 10	1,040 9 0	2,384 8 10
								PROTECTED FORESTS.						
										Kattepura ...	1	... ...	161 10 3	161 10 3
										Arkamale ...	4	... ...	120 9 7	120 9 7
										Kipalli	1	... ...	... ...	... ...
										Total Rs.....	...	... ...	282 3 10	282 3 10
										Grand Total Rs.....	...	1,343 15 10	1,322 12 10	2,666 12 8

Appendix E.

Statement showing the cost of plantations from commencement to end of 1889—90.

Year when opened.	No.	Plantations.	Cost up to 31st March 1889.	Receipts up to 31st March 1889.	During the year 1889—90. Cost.	Receipts.	Total area.	Total charges.	Total receipts.	Balance against plantations.
		REGULAR PLANTATIONS.								
		Sandal.								
1872—73	1	Gangwara	11,617	36	1,333	58	133	12,950	94	12,856
1880—81	2	Kargodu (Malambi)	1,478	...	421	...	43	1,899	...	1,899
1882—83	3	Banawara (Nidta)	676	...	147	...	16	823	...	823
1878—79	4	Herekeri	5,825	15	571	...	100	6,396	15	6,381
1880—81	5	Hurlikal (Anekadu)	1,109	15	145	...	16	1,254	15	1,239
1882—83	6	Attur Bakka	1,083	16	367	...	...	1,450	16	1,434
1883—84	7	Yarekolli (Anekadu)	24	...	3	...	2	27	...	27
1881—82	8	Fraserpet Gandadagundi ...	1,362	58	279	...	29	1,641	58	1,583
1877—78	9	Do Holageri	909	45	88	6	5	997	51	946
1880—81	10	Dubare (bungalow)	967	...	35	...	2	1,002	...	1,002
1880—81	11	Maldare (South Dubare) ...	2,330	...	116	...	7	2,446	...	2,446
1884—85	12	Bambookad (Tittimatti) ...	1,493	...	235	...	25	1,728	...	1,728
1880—81	13	Balumani (Mavukal)	2,084	...	23	...	22	2,107	...	2,107
1880—81	14	Karmad (Hatgat)	2,211	...	170	...	15	2,381	...	2,381
1880—81	15	Nagarahole (Nalkeri)	2,388	...	55	...	12	2,443	...	2,443
		Total.....	35,556	185	3,988	64	* 427	39,544	249	39,295
		Teak Plantations.								
1872—73	1	Karepura	1,981	...	...	...	14	1,981	...	1,981
	2	Herekeri	...	...	112	19	10	112	19	93
1882—84	3	Hurlikal (Attur)	1,184	...	364	...	19	1,548	...	1,548
1879—80	4	Anekadu	3,706	...	540	...	66	4,246	...	4,246
		Do in the open								
1879—80	5	Hanakodu (Dubare) including Chillikori	2,171	...	76	...	28	2,247	...	2,247
1881—82	6	Maldare	1,019	...	87	...	18	1,106	...	1,106
1867—68	7	Tittimatti	1,277	...	48	...	24	1,325	...	1,325
1867—68	8	Karmad	24,445	...	201	...	197	24,646	...	24,646
1872—73	9	Ammalo (Nalkeri)	2,272	...	76	...	17	2,348	...	2,348
1868—69	10	Kutompolo	42,595	1,060	2,422	148	493	45,017	1,208	43,809
		Total.....	80,050	1,060	3,926	167	886	84,576	1,227	83,349
		Fuel Reserve.								
1879—80	1	Merkara	10,948	397	1,036	292	138	11,984	689	11,295
		Total.....	10,948	397	1,036	292	138	11,984	689	11,295
		Cultural Operation.								
		Nalkeri	...	...	...	...	10	...	...	...
		Teak sowing in old bamboo land.								
1887—88	1	Dubare	426	...	441	...	...	867	...	867
1887—88	2	Maldare	87	...	82	...	...	169	...	169
1888—89	3	Mavukal	32	...	126	...	...	158	...	158
		Total.....	545	...	649	...	10	1,194	...	1,194
		Grand Total.....	1,27,099	1,642	9,599	523	1,461	1,37,298	2,165	1,35,133
					ABSTRACT.					
		Sandal	35,556	185	3,988	64	427	39,544	249	39,295
		Teak	80,050	1,060	3,926	167	886	84,576	1,227	83,349
		Fuel	10,948	397	1,036	292	138	11,984	689	11,295
		Cultural operations	545	...	649	...	10	1,194	...	1,194
		Total.....	1,27,099	1,642	9,599	523	1,461	1,37,298	2,165	1,35,133

Form No. 49.

FOREST DEPARTMENT, COORG.

Area of reserved forests, protected forests, unclassed State forests and waste lands for 1889—90.

Division.	Range.	Civil district or territory.	Name of forest.	Area on 1st April 1889. Acres.	Area on 1st April 1889. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 31st March 1890. Acres.	Area on 31st March 1890. Equivalent in square miles.	No. and date of notification of addition or transfer.	Remarks
			Reserved Forests.								
Coorg.	North Coorg.		Sandal Koti	276	...	...	...	276	...		
			Allur	395	1	...	...	395	1		
			Old Ganagoor ... Malambi ...	3,732	6	...	...	3,732	6		
			Old Ganagoor ... Nidta ...	2,499	4	...	...	2,499	4		
			Old Yedavanad ... Yedavanad ...	2,871	4	...	...	2,871	4		
			Old Yedavanad ... Gadinad ...	3,764	6	...	...	3,764	6		
			Old Yedavanad ... Jainkal ...	1,267	2	...	...	1,267	2		
			Old Anekadu ... Anekadu ...	6,697	11	...	...	6,697	11		
			Old Anekadu ... Attur ...	5,260	8	...	...	5,260	8		
			Bactancote	800	1	...	...	800	1		Area estimated
			Dubare	11,363	18	...	...	11,363	18		
	South Coorg.		Devamachi	9,376	15	...	...	9,376	15		
			Mawukal	8,281	13	...	...	8,281	13		
			Arkeri	18,262	29	...	...	18,262	29		
			Hatgat	27,520	43	...	...	27,520	43		
			Nalkeri	26,075	40	...	...	26,075	40		
	Kutompole Ghat.		Urti and Kerti	19,200	30	...	...	19,200	30		Area estimated.
			Chembɔo and Quinad ...	6,400	10	...	...	6,400	10		Do
			Total.....	154,038	241	...	...	154,038	241		
			Protected Forests.								
	North Coorg		Kattepura	585	1	...	...	585	1		
	Kutompole Ghat.		Arkomale Ghat forest	2,500	4	...	...	2,500	4		Area estimated.
			Keepalli do	800	1	...	...	800	1		Do
			Ghat forests	1,94,460	304	...	...	1,94,460	304		Do
			Urudves, Paisaries and *Devarakadus*	1,97,120	308	...	1,604	1,95,516	305		Do
			Total.....	3,95,465	618	...	1,604	3,93,861	615		
			Grand Total.....	5,49,503	859	...	1,604	5,47,899	856		

Form No. 50.

Prosecutions for breaches of Forest Rules during 1889—90.

Forest Division and Civil District.	Cases pending from 1889—90.	New cases of the year. Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	Total cases.	Disposed of during the year. Convictions. Cases.	Convictions. Persons.	Acquittals. Cases.	Acquittals. Persons.	Total. Cases.	Total. Persons.	Cases pending at close of year.
South Coorg	1	1	2	1	3	7	8	4	5	4	8	8	13	
North Coorg	...	...	...	...	3	3	3	3	31	...	...	3	31	
Padinalknad	...	...	1	...	...	1	1	1	1	...	...	1	1	
Merkara	...	...	...	...	1	1	1	...	...	1	1	1	1	
Total.....	1	1	3	1	7	12	13	8	37	5	9	13	46	

Form No. 51.

Area of forest tracts protected from fire during the dry season of 1890 to accompany the report for 1889—90.

Division.	Forest tracts.	Year in which protection commenced.	Area actually protected up to 15th June 1889.	During dry season of 1890. Area attempted to be protected.	Failures.	Actually protected.	Cost during the season.	Remarks
							Rs.	
Coorg.	Kattepura	1889	...	585	...	585	16	
	Sandal Kote	1877	162	276	...	276	134	
	Allur	1889	...	395	...	395	21	
	Old Ganagoor... Malambi ...	...	...	3,732	...	3,732	72	
	Old Ganagoor... Nidta ...	1878	5,680	2,499	...	2,499	36	
	Old Yedavanad Yedavanad ...	...	...	2,871	...	2,871	77	
	Old Yedavanad Gadinad ...	1878	7,612	3,764	...	3,764	84	
	Old Yedavanad Jainkal ...	...	...	1,267	...	1,267	108	
	Old Anekadu ... Anekadu ...	...	...	6,697	37	6,660	108	
	Old Anekadu ... Attur ...	1876	11,937	5,260	...	5,260	152	
	Bactonkote	...	...	800	...	800	27	
	Dubare	1877	8,003	11,363	300	11,063	300	
	Devamachi	1878	5,250	9,376	1,230	8,146	340	
	Mawukal...	1878	...	8,281	...	8,281	488	
	Tittimatti sandal plantation ...	1883	25	25	...	25	15	
	Arkeri	1878	39	18,262	...	18,262	290	
	Hatgat	1878	12,721	27,520	920	26,600	833	
	Nalkeri	1878	21,969	26,075	1,650	24,425	678	
	Kutompolle teak plantation ...	1881	411	468	...	468	84	
	Merkara fuel reserve ...	1883	110	188	....	188	440	
	Fraserpet sandal plantation ...	1881	27	34	...	34	74	
	Total...	...	73,946	1,29,738	4,137	1,25,601	4,377	

Form No. 52.

FOREST DEPARTMENT, COORG.

Area of Plantations, 1889—90.

Division	Name of Plantation.		Area in acres. On 1st April 1889.	Added during the year.	Excluded during the year.	Area on 31st March 1890.	Receipts of the year.	Charges of the year.	Remarks.
	Regular Plantations.								
Coorg.	Gangawara	Sandal ...	121	12	...	133	58	1,333	
	Kargodu (Malambi)	,, ...	27	16	...	43	...	421	
	Banavara (Nidta)	,, ...	10	6	...	16	...	147	
	Herikere	,, ...	79	21	...	100	...	571	
	Hurlikal (Anekadu)	,, ...	16	...	...	16	...	145	
	Attoor-Bakka	,, ...	...	*23	23	...	...	367	*This plantation was destroyed by fire in February 1889, and resown in rains of 1889. It was again destroyed in February 1890.
	Yarekolly (Anekadu)	,, ...	2	...	...	2	...	3	
	Fraserpet Gandadagundi	,, ...	29	...	...	29	...	279	
	Do Holageri	,, ...	5	...	...	5	6	88	
	Dubare (Bungalow)	,, ...	2	...	...	2	...	35	
	Maldare (South Dubare)	,, ...	7	...	...	7	...	116	
	Bambookad (Tittimatti)	,, ...	25	...	...	25	...	235	
	Balumani (Mavukal)	,, ...	22	...	...	22	...	23	
	Karmad (Hatgat)	,, ...	15	...	...	15	...	170	
	Nagarahole (Nalkeri)	,, ...	12	...	...	12	...	55	
		Total.....	372	78	23	427	64	3,988	
	Karepura	Teak ...	14	...	...	14	...	...	
	Herikeri	,, ...	...	10	...	10	19	112	
	Hurlikal (Attoor)	,, ...	19	...	...	19	...	364	
	Anekadu Do in the open	,, ...	60	6	...	66	...	540	
	Hanakodu (Dubare) including Chillikere	,, ...	28	...	...	28	...	76	
	Maldare	,, ...	18	...	...	18	...	87	
	Tittimatti	,, ...	24	...	...	24	...	48	
	Karmad	,, ...	197	...	...	197	...	201	
	Ammale (Nalkeri)	,, ...	17	...	...	17	...	76	
	Kutompolle	,, ...	453	40	...	493	148	2,422	
		Total.....	830	56	...	886	167	3,926	
	Fuel Reserve.								
	Merkara	Fuel ...	125	13	...	138	292	1,036	
		Total.....	125	13	...	138	292	1,036	
	Cultural Operations.								
	Nalkeri		10	...	...	10	...	...	
	Teak sowing in old bambu land.								
	Dubare ...		52	...	52	...	...	441	
	Maldare ...		20	...	20	...	...	82	
	Mavukal ...		6	11	17	...	...	126	
		Total.....	88	11	89	10	...	649	
	Value of 15 reels of barbed wire now remaining in store ...		...	...	...	...	...	272	
		Total.....	...	...	...	...	...	272	
		Grand Total.....	1,415	158	112	1,461	523	9,871	
	Regular Plantations.				**Abstract.**				
	Sandal		372	78	23	427	64	3,988	
	Teak		830	56	...	886	167	3,926	
	Fuel		125	13	...	138	292	1,036	
	Cultural operations		88	11	89	10	...	649	
	Value of 15 reels of barbed wire now remaining in store ..		..	...	...	...	...	272	
		Total.....	1,415	158	112	1,461	523	9,871	

Form No. 54.

FOREST DEPARTMENT, COORG.

Out-turn of timber and firewood during the year 1889—90.

Division.	Description of materials.	Out-turn in cubic feet.												Remarks.
		Regular fellings.	Selection fellings.	Coppice fellings.	Chain fellings.	Improvement fellings.	Thinnings.	Unclassed fellings.	Total.	Removed by— Government agency.	Purchasers.	Free grants.	Right holders.	
	Reserved Forests.													
Coorg.	Teak logs ...	...	18,552	12,708	...	...	...	...	31,260	31,260	...	...	...	
	Honne logs ...	...	20,125	...	...	...	...	...	20,125	20,125	...	...	...	
	Otherwood logs ...	...	17,566	...	...	...	...	...	17,566	17,566	...	...	...	
	Miscellaneous poles,7,601	...	...	...	...	...	...	34,200	34,200	...	34,200	...	...	1 pole= 4½ cubic feet.
	Firewood cart loads,2,401	...	...	41,000	...	19,025	...	...	60,025	...	60,025	...	...	1 cart= 25 do
	Otherwood trees, 319 ...	...	...	...	...	...	...	19,140	19,140	...	19,140	...	...	1 tree= 50 do
	Total.....	...	56,243	53,708	...	19,025	...	53,340	1,82,316	68,951	1,13,365	...	...	
	Protected Forests.													
	Honne trees, 51 ...	...	...	...	...	...	...	2,550	2,550	1,245	605	700	...	1 tree=50 cubic feet.
	Otherwood trees, 102 ...	...	...	...	...	...	...	5,100	5,100	...	3,250	1,850	...	Do do
	Miscellaneous poles, 358.	...	...	...	...	...	...	1,611	1,611	...	513	1,098	...	1 pole= 4½ do
	Firewood cart loads,3,432	...	...	...	...	...	...	96,800	96,800	...	96,800	...	...	1 cart load=25 cubic feet.
	Sandalwood trees,2271= 60½ tons ...	...	...	...	...	...	...	2,464	2,464	2,464	...	...	...	55 lbs.=1 cubic feet.
	Total.....	...	...	...	...	...	...	1,08,525	1,08,525	3,709	1,01,168	3,648	...	
	Grand Total.....	...	56,243	53,708	...	19,025	...	1,61,865	2,90,841	72,660	2,14,533	3,648	...	

Form No. 55.

Out-turn of minor forest produce during the year 1889—90.

Division.	Description of produce.	Produce removed or utilized.										Remarks
		By Government agency.		By purchaser.		By free grants.		By right holders.		Total.		
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
Coorg.	Bambus	8,375	209	2,68,541	3,247	...	...	...	...	2,76,916	3,456	Reserved forest.
	Recoveries on account of cattle pounds ...	...	...	...	362	...	...	...	...	...	362	
	License granted to cut and remove grass from Merkara plantation ...	...	...	...	23	...	...	...	...	...	23	
	Sale of grass from Herikeri plantation ...	...	...	...	35	...	...	...	...	...	35	
	Grazing dues on 57 buffaloes and 707 bullocks	...	...	764	433	...	...	...	...	764	433	
	Cattle admitted by right.	...	...	...	...	...	...	9,643	2,411	9,643	2,411	
	Minor forest produce ...	...	...	...	2,311	...	...	...	...	...	2,311	Reserved & protected forests.
	Cardamoms	...	...	...	8,323	...	...	..	...	...	8,323	Protected forests.
	Total.....	...	209	...	14,734	...	...	...	2,411	...	17,354	

Form No. 56.

FOREST DEPARTMENT, COORG.

Account of timber and other produce cut or collected by Government agency and brought to sale-depots, and sold locally during the year 1889—90.

Particulars.	No. or quantity.	Cubic feet.	Tons.	Total of each head. No. or quantity.	Total of each head. Cubic feet.	Total of each head. Tons.	Particulars.	No. or quantity.	Cubic feet.	Tons.	Total of each head. No. or quantity.	Total of each head. Cubic feet.	Total of each head. Tons.
Balance at commencement of the year.							**Removed by purchasers from depots.**						
Teak logs	918	23,815					Teak logs	929	23,228				
Honne logs	573	13,878					Honne	652	16,863				
Other wood logs ...	510	11,834					Other wood	578	13,838				
Scantlings	135	11,063					Scantlings	7,698	2,932				
				2,136	60,590						9,857	56,861	
Teak poles	496	...					Teak poles	445	...				
Other wood poles ...	243	...									445	...	
				739	...		Bambus	8,375	...				
Bambus	2,652	...									8,375	...	
				2,652	...		**Sandalwood.**						
Sandal wood.							Good wood	...	...	46½			
							Inferior wood ...	...	...	12½			
Good wood	...	...	7½										59
Inferior wood ...	...	...					**Sold locally.**						
						7½	Honne	51	1,891				
Received from the forests in depots.							Other wood	11	583				
											62	2,424	
							Converted in depots.						
Teak logs	1,476	30,400					Teak logs	713	11,809				
Honne logs	574	15,396									713	11,809	
Other wood logs ...	487	12,912					**Lost or written off as useless.**						
				2,537	58,708								
Teak poles	...	...					Honne	2	32				
Other wood poles ...	...	...					Other wood	4	56				
				...	...						6	88	
Bambus	8,375	...					Used by the Department ...	...	...				
				8,375	...						...	...	
Sandalwood.							**Transferred to other sale depots.**						
Good wood	...	...	48				Scantlings	38,269	6,347				
Inferior wood ...	...	...	12½								38,269	6,347	
						60½	**Balance at close of the year.**						
Received from the forests and sold locally.													
							Teak	752	21,164				
							Honne	495	12,411				
Honne	53	1,923					Other wood	419	10,908				
Other wood	15	589					Scantlings	41,570	12,887				
				68	2,512						43,236	57,370	
Received by conversion in depots.							Teak poles	51	...				
							Other wood poles ...	243	...				
											294	...	
Teak scantlings ...	49,133	6,742					Bambus	2,652	...				
				49,133	6,742						2,652	...	
Received by transfer from sale depots.							**Sandalwood.**						
							Good wood	...	...	9			
Scantlings	38,269	6,347					Inferior wood	...	...	...			
				38,269	6,347						...	...	9
Grand Total.....	...	...		1,03,909	1,34,899	68	Grand Total	...	...		1,03,909	1,34,899	68

Form No. 57.

Abstract showing the value of timber and other produce at sale-depots for the year 1889—90.

Description of timber and other produce.	On hand at commencement of the year. No. of logs.	C. ft.	Value.	On hand at close of the year. No. of logs.	C. ft.	Value.	Difference in value. In favor of the year.	Against the year.	Remarks.
			Rs.			Rs.			
Teak logs	918	23,815	17,861	752	21,164	15,873			At annas 12 per c. ft.
Scantlings	135	11,063	8,282	41,570	12,887	9,665			Do
Honne logs	573	13,878	6,016	495	12,411	5,196			At Rs. 10-8-0 per log.
Other wood	510	11,834	4,080	419	10,908	3,352			At Rs. 8-0-0 do.
Teak poles	496	...	496	51	..	51			At Rs. 1-0-0 per pole
Other wood poles ...	243	...	243	243	...	243			Do
Bambus	2,652	...	26	2,652	...	26			At Rs. 10 per 1,000.
Total.....	5,527	60,590	37,004	46,182	57,370	34,406			
Sandalwood.									
Good wood	7½ tons	...	2,610	9	...	3,132			At Rs. 348 per ton.
Inferior wood ...	...	...	...	...	...	...			
Total.....	7½ tons	...	2,610	9	..	3,132			
Grand Total.....	5,534½	60,590	39,614	46,191	57,370	37,538	...	2,076	

Form No. 58.

FOREST DEPARTMENT, COORG.

Summary of revenue of the Coorg Division during 1889—90.

Budget heads.	Total.		
Receipts.			
I.—Timber and other produce removed from the forests by Government agency—			
a. Timber	43,560	7	9
b. Firewood and charcoal	...	...	...
c. Bambus	202	6	0
d. Sandal-wood	21,504	2	8
e. Grass and other minor produce	55	0	0
II.—Timber and other produce removed from the forests by consumers or purchasers—			
a. Timber	4,469	12	11
b. Firewood and charcoal	1,911	14	0
c. Bambus	3,249	1	6
d. Grazing and fodder grass	927	6	6
e. Other minor produce	2,153	8	0
e. Cardamom	8,323	6	1
III.—Drift and waif wood, and confiscated forest produce			
IV.—Revenue from forests not managed by Government—			
a. Duty on foreign timber and other forest produce	...	...	...
b. Revenue from shared and private forests	...	...	...
V.—Miscellaneous—			
a. Fines and forfeitures	...	...	...
b. Refunds	58	3	8
c. Other sources	6,337	15	5
Total Receipts.....	92,753	4	6

Form No. 58.

Summary of expenditure of the Coorg Division during 1889—90.

Budget heads.	Total.		
.—Conservancy and Works.			
I.—Timber and other produce removed from the forests by Government agency—			
a. Timber	21,091	6	2
b. Firewood and charcoal	70	6	0
c. Bambus	167	4	0
d. Sandal-wood	1,128	1	2
e. Grass and other minor produce	...	...	...
II.—Timber and other produce removed from the forests by consumers or purchasers	602	0	0
III.—Drift and waif wood and confiscated forest produce	...	...	...
IV.—Revenue from forests not managed by Government—			
a. Duty on foreign timber and other forest produce	...	...	...
b. Revenue from shared and private forests	...	...	...
V.—Rent of leased forests and payments to shareholders in forests managed by Government	...	...	...
VI.—Live-stock, stores, tools and plant—			
a. Purchase of cattle	...	...	...
b. Feed and keep of cattle	395	4	0
c. Purchase of stores, tools and plant	1,104	14	8
VII.—Communications and buildings—			
a. Roads and bridges	1,015	6	1
b. Buildings	827	3	1
c. Other works	...	...	...
VIII.—Demarcation, improvement and extension of forests—			
a. Demarcation	1,584	11	11
b. Compensation for land and rights	...	...	...
c. Surveys and working plans	948	2	3
d. Sowing and planting	9,870	13	0
e. Protection from fire	4,548	9	6
f. Other works	307	12	8
IX.—Miscellaneous—			
a. Refunds	56	0	0
b. Law charges	89	13	0
c. Other charges	311	6	0
Total A. Conservancy and Works.....	44,069	1	6
B—Establishment.			
I.—Salaries—			
a. Conservators	...	...	...
b. Superior officers	9,885	13	7
c. Subordinate forest and depot establishments	11,871	1	11
d. Office establishments	2,916	0	0
e. Deputation and special allowances	232	4	2
II.—Travelling allowances—			
a. Conservators	...	...	...
b. Superior officers	1,715	2	0
c. Subordinate forest and depot establishments	912	4	6
d. Office establishments	169	11	10
III.—Contingencies—			
a. Stationery	2	7	0
b. Carriage of tents and records	226	12	0
c. Rents, rates and taxes	13	0	0
d. Pay of police guards	...	...	...
e. Official postage	428	6	0
f. Sundries	477	13	0
Total B.—Establishment.....	28,350	12	0
Grand Total of Expenditure.....	72,419	13	6

J. BRIDGNELL
Chief Supt. in charge Forest Account Branch.

Form No. 59.

FOREST DEPARTMENT, COORG.

Account current for the year 1889—90.

Dr. *Cr.*

To cash balance	...	...	...	...	...	...		By expenditure as per annual summary, form No. 58	...	...	...	72,419	13	6
„ VIII Assessed taxes— Income tax deductions from salaries	...	...	...	329	7	9		„ Forest cash remittances, local— Remittances to Treasuries	87,380	11	10			
„ Revenue as per annual summary Form No. 58	...	...	...	92,753	4	6						87,380	11	10
„ Forest cash remittances, local— Forest cheques drawn ...	72,531	5	2											
				72,531	5	2								
„ Advances recoverable ...	...	...	...	51,124	12	7		„ Advances recoverable...	...	...	...	52,100	9	4
„ Suspense	...	...	...	0	2	0		„ Account current (other Governments)— Remittances to the Government of Madras.	...	...	...	3,268	0	0
„ Account current (other Governments.) Remittances from Government of C. Provinces ...	...	...	...	500	0	0		„ Inter departmental transfers— P. W. Department ordinary... ...	2,131	13	0	...	...	...
Civil Department— Jail	158	6	0					Miscellaneous ...	23	3	8			
Mathematical Instrument Department	...	...	...									2,155	0	8
Miscellaneous	4	0	0											
				162	6	0		„ Cash balance ...	...	...	...	77	2	8
Total Rs.....	...	...	...	2,17,401	6	0		Total Rs.....	...	...	...	2,17,401	6	0

J. BRIDGNELL

Chief Supt. in charge Forest Account Branch

Form No. 60.

Revenue received and outstandings on account of revenue during 1889—90.

Division.	Particulars.	Outstandings at commencement of the year.			Value of sales and other revenue during the year.			Total.			Amount realised during the year.			Written off.			Balance due to the department at the end of the year.			Remarks.
Coorg.	I. *a.* Timber ...	10,492	6	0	41,297	15	8	51,790	5	8	43,311	15	7	...	...	...	8,478	6	1	
	b. Firewood ...	1	0	0	...	...	...	1	0	0	...	...	...	...	...	...	1	0	0	
	c. Bamboos ...	11	12	0	209	6	0	221	2	0	209	6	0	...	...	...	11	12	0	
	d. Sandalwood ...	4,905	8	11	22,953	7	9	27,859	0	8	21,532	0	8	...	...	...	6,327	0	0	
	II. *a.* Timber ...	425	5	0	5,522	2	6	5,947	7	6	4,794	1	6	...	...	...	1,153	6	0	
	b. Firewood ...	56	8	0	1,909	2	0	1,965	10	0	1,917	8	0	...	...	...	48	2	0	
	c. Bamboos ...	124	5	0	3,575	5	6	3,699	10	6	3,247	9	6	...	...	...	452	1	0	
	d. Grazing and fodder grass ...	90	4	0	803	5	10	893	9	10	853	0	6	...	...	...	40	9	4	
	e. Other minor produce	363	9	8	2,732	14	0	3,096	7	8	2,311	10	0	...	...	...	784	13	8	
	Cardamoms ...	3,974	7	2	25,902	9	0	29,877	0	2	8,323	14	1	5	0	0	21,548	2	1	
	III. Confiscated wood...	2	8	0	...	...	...	2	8	0	...	...	...	...	...	...	2	8	0	
	IV. *b.* Refunds ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	c. Other sources ...	8,272	10	8	6,797	3	10	15,069	14	6	6,297	25	0	1,860	0	0	6,911	15	6	
	Total Rs.....	28,720	4	5	1,11,703	8	1	1,40,423	12	6	92,799	0	10	1,865	0	0	45,759	11	8	

J. McKEE

Dy. Conservator of Forests, Coorg.

Form No. 61.

Outstandings and liabilities on account of contractors and disbursers for 1889—90.

Division.	Department debtor.						Department creditor.						Balance due.						Remarks.
	At commencement of year.			Recoveries in cash and value of supplies and work done during the year.			At close of year.			At commencement of year.			Payments made during year.			At close of year.			To department, (outstandings.)			By department, (liabilities.)			
Coorg Forest Division.	...	...	...	51,124	12	7	51,124	12	7	1,697	15	1	52,100	9	4	53,798	8	5	2,686	5	0	12	9	2	
Total Rs.....	...	...	...	51,124	12	7	51,124	12	7	1,697	15	1	52,100	9	4	53,798	8	5	2,686	5	0	12	9	2	

J. BRIDGNELL

Chief Supt. in charge Forest Account Branch

Form No. 62.

Financial results of the year 1889—90.

Division.	Timber and other produce removed from the forests by Government agency.		Other revenue.		Formation, protection & improvement of forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
Coorg	65,322	33,156	27,431	5,984	33,280	92,753	72,420	

COORG DY. CONSERVATOR'S OFFICE.
MERKARA, *5th July* 1890.

J. McKEE.
Deputy Conservator of Forests, Coorg.

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